

# DIVISION OF UNDERGROUND STORAGE TANKS

# REIMBURSEMENT GUIDANCE DOCUMENT (RGD) – 002

## Control Number UST-G-RGD-02-041522

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recommendation for use

Effective Date: April 1, 2022

#### I. GENERAL GUIDANCE

#### A. Purpose

The purpose of this Reimbursement Guidance Document (RGD) is to provide detailed descriptions and maximum costs for routine tasks associated with underground storage tank (UST) system closure, hazard management, investigation and clean-upcleanup of petroleum contaminated sites where tank owners, tank and/or operators or petroleum site owners may apply for reimbursement of eligible expenses from the Petroleum Underground Storage Tank Fund (Fund). —This document contains unit rates that the Division of Underground Storage Tanks (Division) considers to be reasonable.\_-Only these rates or lower will be reimbursed unless prior written Division approval is granted. The Division will review reimbursement applications based on this guidance.

Rule 0400-18-01-.09 Petroleum Underground Storage Tank Fund can be located at <a href="https://publications.tnsosfiles.com/rules/0400/0400-18/0400-18-01.20210615.pdf">https://publications.tnsosfiles.com/rules/0400/0400-18/0400-18-01.20210615.pdf</a>.

T.C.A. § 68-215-111 Use of the Fund can be located at <a href="http://www.lexisnexis.com/hottopics/tncode/">http://www.lexisnexis.com/hottopics/tncode/</a>.

## B. Applicability

This document replaces all previously published guidance affecting the reimbursement process.

Rule <u>0</u>400-18-01-.09(3)-(<u>ced</u>) states "Except as provided for in subparagraph (5)(d) of this rule, before the <u>tank</u> owner <u>and/</u>or operator or petroleum site owner will receive fund benefit, the applicable <u>entry leveldeductible</u> amount <u>to the fund</u> shall be expended as approved costs by the <u>tank</u> owner <u>and/</u>or operator or petroleum site owner. -The applicable <u>entry leveldeductible amount</u> is <u>the entry level in effect on the date of the release as</u> set forth in subparagraph (6)(b) of this rule."

Rule <u>0</u>400-18-01-.09(4)(a) states: "If <u>the Division determines that fund eligibility was not established</u> at the time of discovery of a release, <u>the division Division determines that an owner and/or operator has failed to establish fund eligibility</u> in accordance with subparagraph (3)(a) or (b) of this rule, corrective action costs and/or <u>third-third-party</u> damages associated with that release are not eligible for <u>coverage reimbursement</u> by the fund."

Rule <u>0</u>400-18-01-.09(4)(<u>db</u>) states: "If there is evidence of a suspected release or a confirmed release on or after July 1, 2004, that release shall be ineligible for

reimbursement from the fund if an Application for Fund Eligibility is not timely filed in accordance with the following:

- 1. An Application for Fund Eligibility shall be filed with the <u>division Division</u> within <u>ninety (90)</u> days of the discovery of evidence of a suspected release <u>which that</u> is subsequently confirmed in accordance with Rules 0400-18-01-.04 <u>and/or 0400-18-01-.05</u>. The <u>ninety (90)</u> days shall start on the day the evidence of the suspected release is discovered.
- 2. An Application for Fund Eligibility shall be filed with the <u>Dd</u>ivision within <u>sixty</u> (60) days of a release <u>which-that</u> was identified in any manner other than the process for confirmation of a suspected release in accordance with Rules 0400-18-01-.04 <u>and/</u>or 0400-18-01-.05, for example, during closure activities performed in accordance with Rule 0400-18-01-.07."

Rule <u>0</u>400-18-01-.09(6)(c) states: "The fund shall <u>be responsible to reimburse</u> eligible <u>UST tank</u> owners <u>and/</u>or operators or petroleum site owners, <u>who qualify for fund coverage in accordance withsatisfy the requirements of paragraphs (10) and (11) of this rule,</u> -for eligible corrective action costs above the <u>entry level\_deductible</u> to the fund in an amount not to exceed: <u>two million dollars</u> (\$2,000,000) per site per occurrence. Likewise, the fund shall be responsible to eligible UST owners and/or operators or petroleum site owners for court awards involving third party claims above the entry level into the fund in an amount not to exceed two million dollars (\$2,000,000) per site per occurrence

- 1. \$2,000,000 per site per occurrence for sites still undergoing corrective action on July 1, 2015, or releases that occur on or after July 1, 2015;
- 2. \$1,000,000 per site per occurrence for site cleanups closed on or before June 30, 2015; or
- 1.3. \$1,000,000 per site per occurrence for court awards involving third—party claims."

Rule <u>0</u>400-18-01-.09(8)(c) states: "The <u>tank</u> owner <u>and/</u>or operator or petroleum site owner fund deductible amounts as specified in subparagraph (6)(b) of this rule are not eligible for reimbursement from the fund. –Proof of payment of these initial amounts is required prior to reimbursement of any costs. The <u>tank</u> owner <u>and/</u>or operator or petroleum site owner fund deductible for taking corrective action cannot include any cost defined as fund ineligible in subparagraphs (a) and (b) of this paragraph."

Rule 0400-18-01-.09(9)(dc) states: "All claims against the fund are clearly obligations only of the fund and not of the State, and any amounts required to be paid under this part are subject to the availability of sufficient monies in the fund. -The full faith and

credit of the State shall not in any way be pledged or considered to be available to guarantee payment from such fund."

Rule <u>0</u>400-18-01-.09(10)(b) states: "Upon confirmation <u>and reporting</u> of a release in accordance with the requirements of paragraphs (1) through (3) of Rule 0400-18-01-.05 or after a release from the UST system is identified in any other manner, the <u>tank</u> owner <u>and/</u>or operator or petroleum site owner shall select a contractor from the <u>division's Division's</u> list of approved contractors if the <u>tank</u> owner <u>and/</u>or operator or petroleum site owner expects to apply for <u>reimbursement from the fund benefits</u>. The tank owner or operator or petroleum site owner shall notify Tthe <u>division Division shall be notified</u> in writing of such a selection within <u>thirty (30)</u> days or <u>an</u>other time frame specified by the <u>division Division</u>. A contractual agreement shall be established between the <u>tank</u> owner <u>and/</u>or operator or petroleum site owner and the contractor in accordance with the requirements of T.C.A. § 68-215-129. <u>The tank owner or operator or petroleum site owner The division Division</u> shall be provided the Division a copy of the contractual agreement."

Rule <u>0</u>400-18-01-.09(12)(e) states: "All payments shall be subject to approval by the <u>division Division</u>. Should a site inspection or other information available to the <u>division Division</u> reveal a discrepancy between the work performed and the work addressed by a payment application, the <u>division Division</u> may deny payment or may require the fund to be reimbursed."

Rule  $\underline{O}400-18-01-.09(12)(f)$  states: "All applications for payment of costs of cleanup shall be received by the  $\underline{D}$ division within one (1) year of performance of the task or tasks covered by that application in order to be eligible for payment from the fund."

Rule <u>0</u>400-18-01-.09(14)(d) states: "Contingent upon availability of funds, the <u>department-Division</u> shall process all applications for payment as soon as possible upon receipt of application. If <u>the Division determines</u> all costs are <u>considered to be</u> reasonable and eligible for reimbursement, payment will be issued within <u>ninety</u> (90) days once costs have been determined to be reasonable and eligible for reimbursement.—<u>If the Division determinesd that If</u> certain costs <u>are considered as</u> not <u>being</u> reasonable or eligible for reimbursement, the <u>division Division</u> may issue a check for the amount of the <u>application approved costsnot in question</u> and provide a <u>forty-five</u> (45)-<u>day</u> period in which the <u>tank</u> owner <u>and/</u>or operator or petroleum site owner or contractor may present such information as is necessary to justify the disallowed costs.—Following review of such information, the <u>division Division</u> may agree to pay the previously disallowed costs, or any portion thereof, or may again disallow the costs for payment. <u>-If the division Division</u> disallows costs upon a second review, the <u>tank</u> owner <u>and/</u>or operator or petroleum site owner may petition the <u>bB</u>oard for a hearing on the disallowance pursuant to Rule 0400-18-01-.11."

Rule 0400-18-01-.09(15)(a) states: "The CAC is the person responsible for conducting and overseeing the corrective action at a petroleum underground storage tank site. There shall be only one CAC for each site."

Rule 0400-18-01-.09(15)(b)5– states in part: "-The CAC shall submit a list of CAC's employees that will be utilized by the CAC as a part of the assessment and remediation of UST sites in Tennessee."

Rule 0400-18-01-.09(15)(b)—part—5(ii) states: "The list of the employees shall be submitted with the application described in part 1 of this subparagraph and annually with a due date of April 1 of each year thereafter."

Rule 0400-18-01-.09(15)(b)-part-5(iii) states: "When a new employee begins working for a CAC, within 15 days of the first day of employment or as soon as their work time will be submitted to the Division for reimbursement, the CAC shall submit the employee information required in subpart (i) of this part to the Division."

## C. Application for Fund Eligibility Determination and Reimbursement Application Format

T.C.A. 68-215-111(f)(5)(B) states: "Notwithstanding subdivision (f)(5)(A), the fund shall be responsible for up to a maximum of two million dollars (\$2,000,000) of cleanup costs for sites still undergoing corrective action on July 1, 2015, and releases that occur on or after July 1, 2015. The sum of the deductible and the maximum reimbursement shall not exceed two million dollars (\$2,000,000). The fund shall be responsible for cleanup of contamination due to releases from petroleum underground storage tanks on a per-site, per-occurrence basis."

T.C.A. 68-215-111(f)(67)(A)\* states: "If there is evidence of a suspected or a confirmed release on or after July 1, 2004, in order for the tank owner, tank operator or petroleum site owner to receive reimbursement from the fund, an application for fund eligibility shall be filed:

- (i) Within ninety (90) days of the discovery of evidence of a suspected release which is subsequently confirmed in accordance with the rules promulgated pursuant to this part; or
- (ii) Within sixty (60) days of a release which was identified in any manner other than the process for confirmation of a suspected release stated in the rules promulgated pursuant to this part."

T.C.A.  $68-215-111(f)(67)(B)^{*}$  states: "The tank owner or tank operator shall send notification to the petroleum site owner by certified mail, return receipt requested, within seven (7) days of confirmation of a release. Failure to comply with the

applicable deadline of subdivision  $(f)(\frac{67}{2})(A)(i)$  or  $\frac{(f)(7)(A)}{(ii)}$  shall make the release ineligible for reimbursement from the fund."

T.C.A. 68-215-111(f)(78)\* states: "On or after July 1, 2004, all applications for payment of costs of cleanup shall be received by the division within one (1) year of the performance of the task or tasks covered by that application in order to be eligible for payment from the fund."

T.C.A. 68-215-111(f)(5)(B) states: "Notwithstanding subdivision (f)(5)(A), the fund shall be responsible for up to a maximum of two million dollars (\$2,000,000) of cleanup costs for sites still undergoing corrective action on July 1, 2015, and releases that occur on or after July 1, 2015. The sum of the deductible and the maximum reimbursement shall not exceed two million dollars (\$2,000,000). The fund shall be responsible for cleanup of contamination due to releases from petroleum underground storage tanks on a per-site, per-occurrence basis.

<sup>\*</sup>See Public Chapter No 794 of the Public Acts of 2008

\*\* See Public Chapter No 292 of the Public Acts of 2015

<u>Table of Contents</u> <u>Page</u>

To electronically navigate to a selection, <u>move your mouse to the selected title</u>, depress the "Ctrl" button on your keyboard and <del>scroll with your mouse to the selected title</del>. With the "Ctrl" button still depressed, left click with your mouse on the selected title. <u>Y-and you</u> will <u>then</u> be relocated to <u>the that</u> selection in the document.

A. Purpose B. Applicability	2 <b>ent</b> 5
	<b>ient</b> 5
	5
C. Application for Fund Eligibility Determination and Reimbursem Application Format	
A. Definitions	<u>11</u> <del>10</del>
III. REIMBURSEMENT APPLICATION GUIDELINES	<u>13<del>12</del></u>
A. Initial Reimbursement Application	<u>13</u> 12
B. Subsequent Reimbursement Applications	<u>14</u> 12
C. Final Reimbursement Application	<u>14</u> 12
IV. ELIGIBLE COSTS	<u>14</u> 12
A. UST System Closure Process	
B. Hazard Management Process	<u>14</u> 13
C. Release Investigation Process	<u>15</u> 13
D. Risk Management and Corrective Action Process	<u>15</u> 13
E. Final Site Closure Process	<u>15</u> 14
F. Miscellaneous	<u>16</u> 14
V. INELIGIBLE COSTS	<u>16</u> 14
A. UST System Closure Process	
B. Hazard Management Process	<u>16</u> 15
C. Release Investigation Process	<u>17</u> 15
D. Risk Management and Corrective Action Process	<u>17</u> 15
E. Final Site Closure Process	
F. Miscellaneous	<u>17</u> 15

VI.	PERS	ONNEL DESCRIPTIONS AND RATES	<u>19</u> 17
	A.	Staff Descriptions	<u>19</u> 17
	C.	Table of Staff Rates	<u>22</u> 20
VII.	REAS	ONABLE REIMBURSEMENT RATES	<u>23</u> 20
	A.	Equipment	<u>23</u> 20
	B.	Vehicles	<u>26</u> 23
	C.	Disposal and Treatment of Contaminated Soil	<u>27</u> 24
	D.	Disposal and Treatment of Contaminated Water	<u>27</u> 24
	E.	Drum Disposal of Contaminated Soil and/or Water (includes co drum)	
	F.	Drilling	
	G.	Laboratory Analyses	
н.	Trave	el Expenses and Per Diem	<u>31</u> 28
	TASK	1.1 Over-excavation	<u>33</u> 30
	Task	1.2 Groundwater/Free Product Removal	<u>36</u> 32
	Task	1.3 Soil Treatment/ Disposal	<u>38</u> 34
		Task 1.3.a Soil Treatment by Aeration	<u>38</u> 34
		(This method of soil treatment is only allowed for gasoline imp soil.)	
		Task 1.3.b Hauling and Soil Disposal by Landfilling	
		Task 1.3.c Soil Treatment by Landfarming	<u>42</u> 38
	Task	1.4 TRBCA Closure Process	4339
2.0	HAZA	ARD MANAGEMENT PROCESS	<u>47</u> 4 <del>2</del>
	Task	2.1 Interceptor/Recovery Trench Installation (with Division appronal)	
	Task	2.2 Groundwater/Free Product Removal from an Interceptor/Re Trench (with Division approval only)	_
	Task	2.3 Free Product Removal by Hand Bailing (with Division approv	-
	Task	2.4 Mobile Enhanced Multi-phase Extraction (MEME)	_
	Task	2.5 Free Product Recovery on Surface Water	57 <del>52</del>

	Task 2.6 Continuous Free Product Removal (with Division approval only) <u>59</u> 54
	Task 2.7 Impacted Drinking Water Management
	Task 2.8 Petroleum Vapor Impact Management
3.0	RELEASE INVESTIGATION PROCESS
	Task 3.1 Project Management <u>62</u> 57
	Task 3.2 System Test
	Task 3.3 Drilling
	Task 3.4 Sampling
	Task 3.5 Receptor and Water Use Survey
	Task 3.6 Site Survey
	Task 3.7 Vapor Monitoring
	Task 3.8 Soil Gas Survey
	Task 3.8.a Soil Gas Survey Using Direct Push Technology
	Task 3.8.b Soil Gas Survey Using Hammer Drill or Slide Hammer 7669
	Task 3.9.a Advanced Site Characterization Technologies
Max	kimum allowable cost per day is \$1,134.50 <u>80</u> 73
	Task 4.1 Risk Reduction <u>8275</u>
	Task 4.2 Institutional Controls
	Task 4.3 Engineering Controls
	Task 4.4 Corrective Action8678
	Task 4.4.a Corrective Action System Installation8678
	Task 4.4.b Corrective Action System Operation and Maintenance 9082
	Task 4.4.c Corrective Action Sampling9486
	Task 4.4.d Corrective Action System Closure9999
	Task 4.4.e Corrective Action Material Injection/Application
Max	kimum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1 <u>104</u> 95
The	cost of shipping samples to the supplier/manufacturer is reimbursable. <u>104</u> 95
	Task 5.1 Well Abandonment
	Task 5.2 Site Restoration <u>107</u> 97

6.0	SUBN	MITTED DOCUMENTS MAXIMUM COST TABLE	<u>108</u> 98
7.0	PER [	DIEM AND LODGING PROCESS	<u>114</u> 104
	Task	7.1 Per Diem	<u>114</u> 104
	Task	7.2 Lodging	<u>115</u> <del>10</del> 4
IX.		RUCTIONS FOR COMPLETING REIMBURSEMENT APPLICATION ABASE 116105	IS IN THE COST
	A.	UST Cost Database Instructions	<u>116</u> <del>105</del>
	B.	To Begin The Invoice	
	C.	Cost Database Main Page	
	D.	Invoice Entry Page	
	E.	General Information Page	
	F.	Process And Tasks Page	<u>118</u> <del>107</del>
	G.	Buttons	<u>118</u> <del>107</del>
	Н.	Previewing the Information (General Information Page)	<u>120</u> <del>109</del>
	I.	Create File For Submittal To State Of Tennessee (Use Only Application Is Complete)	
	J.	Back-up Documentation To Application	<u>120</u> <del>109</del>
	K.	Suggested Practices	<u>120</u> <del>109</del>
	1	Certification Affidavit Pages	121100

#### II. **DEFINITIONS AND ACRONYMS**

#### A. **Definitions**

For the purposes of this RGD only, the following definitions apply:

Contamination-

Laboratory confirmed petroleum impact to a) drinking or surface water above Risk Based Cleanup Levels (RBCLs) and/or b) soil or groundwater above Site-Specific Cleanup Levels (SSCLs) or Initial Screening Levels (ISLs) for sites that an exposure assessment has not been completed.

Soil and/or ground watergroundwater analytical results with regulated petroleum constituents exceeding the Division's Initial Screening Levels (ISLs) as identified during closure activities, Phase II investigation, etc. or Division's approved Site-Specific Clean-up Levels (SSCLs).

Deductible-

The entry level or amount of financial responsibility that must be expended as approved costs by the responsible party prior to any reimbursement of eligible expenses. All releases that occurred on or after July 1, 2005 June 15, 2021 have a deductible of \$20,000.005,000.00 00 (twenty thousand dollars) unless granted a reduced deductible. A higher deductible may apply per Rule 0400-18-.09(6)(b)7.

Maximum Workday- The allowable maximum number of hours/day that may be claimed for any task is ten (10) hours unless written approval is obtained from the Division case project manager in advance of conducting the work. This excludes tasks 2.4.e and any lump sum task.

Markup

Allowable markup for most items is 15% not to exceed listed maximum cost/rates. However, some tasks only allow a 5% markup as stated in the applicable task description.

Proof of payment-

The acceptable evidence that the invoices included in the initial reimbursement application<u>(s) indicates have that the deductible</u> has been paid. The acceptable methods include either copies of canceled checks or affidavits (CAC Certification page) signed by the contractors stating they have received payment.

Reasonable cost-

The monetary amount or range, as determined by the Division, to be commensurate with a corrective action activity. The Division's determination is based on an evaluation of typical expected costs. This evaluation considers the scope and complexity of the particular corrective action activity involved.

Weekk- Rental equipment is often rented on a weekly basis. A week is

defined as three (3) to five seven (57) consecutive days.

## B. Acronyms Used in this Document and the Excel® cost task spreadsheets

AT Alternative Technology

BTEX Benzene, toluene, ethylbenzene, and total xylenes

BTEXMN Benzene, toluene, ethylbenzene, total xylenes, MtBE, and Naphthalene

CAC Corrective action contractor

CAD/GIS Computer aided design-/Geographic information systems

CAP Corrective Action Plan

<u>CABMR</u> <u>Corrective Action Baseline Monitoring Report</u>
CACMR <u>Corrective Action Closure Monitoring Report</u>

<u>CAMR</u> <u>Corrective Action Monitoring Report</u>

<u>CAMR -ab</u> <u>Corrective Action Monitoring Report with as-built diagrams</u>

CAS Corrective Action System

CASDR Corrective Action System Down Report
CASFL Corrective Action System Field Log
CASRL Corrective Action System Repair Log

CFM Cubic feet per minute

DMR Discharge Monitoring Report

EAG Environmental Assessment Guidelines

EDB Ethylene Dibromide
EDC Ethylene Dichloride

EPH Extractable Petroleum Hydrocarbons (Note that EPH has no SSCL,

RBCL, or ISL as it is utilized as a "soil screening" mechanism only for

the potential installation of a monitoring well for UST tank closure and

site check activities)

FID Flame ionization detector

FP Free product

FPIR Free Product Investigation Report

FPRP Free Product Removal Plan

GPM Gallons per minute

HMR Hazard Management Report
HNR Hazard Notification Report

HRSC High Resolution Site Characterization

IRHMR\_\_\_\_\_Initial Response and Hazard Management Report

ISCR Initial Site Characterization Report

ISL Initial screening level

<u>kW</u> <u>Kilowatt</u>

MCL Maximum contaminant level

MEME	_Mobile enhanced multi-phase extraction
MtBE	Methyl tertiary butyl ether
NAPHNaphth	<del>ialene</del>
NOD	Notice of deficiency
NOV	Notice of violation
NPDES	_National pollution discharge elimination system
OSHA	Occupational Safety and Health Administration
OVD	Organic vapor detector
PID	Photoionization detector
POTW	Publicly owned treatment works
<u>PSI</u>	Pounds per square inch
QA/QC	_Quality assurance and quality control
<u>RBCL</u>	Risk based cleanup level
RGD	Reimbursement Gguidance Ddocument
<u>RMR</u>	Risk Monitoring Report
SGS	Soil gas survey
<u>SSCL</u>	Site specific cleanup level
SOW— <u>Task</u>	Reimbursement TaskScope of work
TCLP	Toxicity characteristic leaching procedure
TGD	Technical guidance document
TRBCA	_Tennessee risk-based corrective action
UST	Underground storage tank

#### III. REIMBURSEMENT APPLICATION DATABASE INSTRUCTIONS

An Access<sup>®</sup> database has been developed to prepare and submit electronic applications. The database is available for download from the Division's website:

Applications, appeals, questions, comments, etc. should be submitted to: ust.reimbursement@tn.gov

#### IIIV. REIMBURSEMENT APPLICATION GUIDELINES

<u>Instructions for completing a Reimbursement Application are in Section IX.</u>

In order to receive reimbursement, all reimbursement applications must be submitted within one (1) year of the date the work is performed.

#### A. Initial Reimbursement Application

After a new release has been <u>suspected or</u> confirmed, an <u>Fund eligibility</u> application for Fund Eligibility shall be prepared and submitted. The initial reimbursement application shall not be submitted until Fund eligibility and the

deductible hasve been determined. If <u>full operational compliance is verified</u> Fund eligibility is approved, then the Division will send a confirmation letter <u>specifyingand</u> include the applicable deductible. At this point, an initial reimbursement application may be submitted. If <u>full operational compliance is not met</u> Fund eligibility is denied, then the Division will notify the responsible party <u>of the deductible with an enforcement orderwith a denial letter</u>. This letter <u>order</u> will also include information on the appeal process. If Fund eligibility is denied, then an initial application may be submitted during the Fund eligibility appeal process, but will not be reviewed by the Division. Some sites may not require corrective action that would result in the submittal of subsequent applications.

## B. Subsequent Reimbursement Applications

Subsequent applications may be submitted at the completion of each cleanup activity major reimbursable task provided they are submitted within one (1) year from the date performed.

## C. Final Reimbursement Application

The final application shall be submitted within one (1) year of contamination case closure issued by the Division.

#### IV. ELIGIBLE COSTS

The following processes include common tasks that are eligible for reimbursement <u>once the applicable deductible has been met</u>, with Division approval.

#### A. UST System Closure Process

- 1. Over-excavation of contaminated material after the first 100 cubic yards of native material has been removed
- 2. Sample collection after over-excavation and/or recharge of groundwater into the tank pit
- Soil and water laboratory analysis, including routine shipping charges, after over-excavation and/or recharge of groundwater into the tank pit
- 4. Disposal of contaminated soil (including contaminated backfill), contaminated water, and/or free product
- 5. Installation and sampling of monitoring well required for risk-based closure
- Conducting a water use survey
- <u>76.</u> Preparation of a risk-based closure report <u>(TRBCA Closure Report includes monitoring well installation, groundwater sampling and water use survey, if necessary)</u>

## B. Hazard Management Process

- Alternate water supply <u>providing bottled water</u> installing water taps, hookup to public water supply, filtration system, and/or drilling a new well. This also includes abandonment of public or private water supplies that are no longer in use.
- 2. Rental of equipment that deals with emergency response (i.e., vapor abatement)
- 3. Recovery of free product
- 4. Sample collection
- 5. Soil, water, and air laboratory analysis, including routine shipping charges
- 6. Disposal of contaminated soil, contaminated water, and/or free product
- 7. Preparation of required submittals

#### C. Release Investigation Process

- 1. Installation of soil borings and/or monitoring wells
- 2. Rental of equipment relative to the investigation of the contaminated site
- 3. Tank tightness tests (if used for a required investigation by the Division)
- 4. Sample collection
- 5. Soil and water laboratory analysis, including routine shipping charges
- 6. Disposal of contaminated soil, contaminated water, and/or free product
- 7. Preparation of required submittals

## D. Risk Management and Corrective Action Process

- 1. Public notice advertisements for corrective action
- 2. Construction, <u>delivery</u>, operation, and maintenance of approved treatment systems
- 3. Telephone charges associated with a telemetry system (must be plainly stated on in the reimbursement application)
- 4. Rental of equipment that deals for use during with remediation of the contaminated site
- 5. Installation of recovery wells, trenches, and associated piping
- 6. Sample collection
- 7. Soil, water, and air laboratory analysis, including routine shipping charges
- 8. Disposal of contaminated soil, contaminated water, and/or free product
- 9. Preparation of required submittals
- 10. Preparation of required permits
- 11. Obtaining necessary utility connections and service

#### E. Final Site Closure Process

- 1. Public notice advertisements for termination of a corrective action plan
- 2. Deactivation of the treatment system
- 3. Well abandonment
- 4. Decommissioning the treatment system

- 5. Site rehabilitation
- 6. Preparation of required submittals

#### F. Miscellaneous

- 1. Annual well fees (Shelby County) (no markup)
- 2. Color copy of topographic map (third party invoice required)
- 3. Bonds required by government agencies (no markup)
- 34. Preparation of required submittals

#### VI. INELIGIBLE COSTS

The following processes include common tasks and specific activities or costs that are not eligible for reimbursement.

## A. UST System Closure Process

- Activities associated with preparing, removing, and disposing of the tank system, including breaking and removing concrete, removing product from tanks, de-gassing tanks, etc.
- 2. Replacement backfill material for the volume of the excavated tank(s)
- Completing an Application for Permanent Closure of Underground Storage Tank Systems, Permanent Closure Report (non risk-basedt TRBCA Closure Report report), Application for Fund Eligibility, and/or the Reimbursement Application
- 4. Expedited or rush charges for laboratory analysis of samples without prior Division approval
- 5. Field screening activities for the underground storage tank backfill material and the first 100 cubic yards of stockpiled soil
- 6. Rental/lease charges that exceed the purchase price of the equipment
- 7. Removal of backfill material in the tank pit and the first 100 cubic yards of overexcavated contaminated native material
- 8. Replacement of asphalt or concrete
- Replacement, repair, maintenance, removal, and retrofitting of any UST system or interceptor trench
- 10. Samples required for tank closure

## **B.** Hazard Management Process

- 1. Monthly water utility bills (if a public water connection was made in response to a release)
- 2. Utility deposits
- 3. Markup on utility bills and/or permits
- 4. Expedited or rush charges for laboratory analysis of samples without prior Division approval

- 5. Rental/lease charges that exceed the purchase price of the equipment
- 6. Replacement of asphalt or concrete (except for trenching with a corrective action system or interceptor trench)
- 7. Completing the Reimbursement Application

#### C. Release Investigation Process

- Expedited or rush charges for laboratory analysis of samples without prior
   Division approval
- 2. Rental/lease charges that exceed the purchase price of the equipment
- 3. Completing the Reimbursement Application

## D. Risk Management and Corrective Action Process

- 1. Monthly water utility bills (if a public water connection was made in response to a release)
- 2. Utility deposits
- 3. Markup on utility bills and/or permits
- 4. Expedited or rush charges for laboratory analysis of samples without prior Division approval
- 5. Rental/lease charges that exceed the purchase price of the equipment
- 6. Replacement of asphalt or concrete (except for trenching with a corrective action system)
- 7. Telephone charges not associated with a telemetry system
- 8. Completing the Reimbursement Application

#### E. Final Site Closure Process

- 5.1 Well abandonment permit (Shelby County)
- 5.2 Completing the Reimbursement Application

#### F. Miscellaneous

- 1. Any service for which the applicant will receive reimbursement from a commercial insurance carrier
- 2. Corrective action contractor costs
  - a. Any type of reference book, technical book, and/or guideline
  - b. Application or appeals for denied costs
  - c. Cellular or portable phone charges
  - d. Computer time, software, hardware, etc.
  - e. Copy machine and copies
  - f. Fax transmittals
  - g. General office supplies
  - h. Insurance
  - i. Notary services

- j. Office equipment and miscellaneous office items
- k. Overtime charges
- Personnael protective equipment (chemical resistant suits, respirators, etc.)
- m. Postage or express shipping of maps, photographs, reports, etc.
- n. Property title searches
- o. Rental equipment insurance
- <u>ρο</u>. Telephone charges not associated with a telemetry system
- pq. Video camcorder
- <u>qr</u>. <u>Mark-upMarkup</u> on sales tax
- <u>rs.</u> Mark-upMarkup on freight/shipping
- s. Markup on mobilization/demobilization
- t. Markup on lodging and per diem
- u. Markup on subcontractor reports
- 3. Durable items which are not totally expended on one site such as raincoats, tools, shovels, ——etc.
- 4. Installation of leak detection
- 5. Legal fees
- 6. Loss of business revenues (business interruption)
- 7. Loss of petroleum product
- 8. Monthly water utility bills where the Division paid for connection to a public water supply
- 9. Responsible Party Costs
  - a. Administration costs including management, office time, and supplies
  - b. Any type of reference book, technical book, and/or guideline
  - c. Application or appeals for denied costs
  - d. Cellular or portable phone charges
  - e. Change of Corrective Action Contractor (CAC) and any costs associated with initial project set-up review, site reconnaissance, etc. including file reviews
  - f. Computer time, software, hardware, etc.
  - g. Copy machine and copies
  - h. Fax transmittals
  - i. General office supplies
  - i. Insurance
  - k. Notary services
  - I. Office equipment and miscellaneous office items
  - m. Overtime charges
  - n. <u>Personnel Personal protective equipment</u> (chemical resistant suits, respirators, etc.)
  - o. Postage or express shipping of maps, photographs, reports, etc.
  - p. Property tax
  - q. Property title searches
  - r. Rental equipment insurance
  - <u>rs</u>. Telephone charges not associated with a telemetry system

- st. Video camcorder
- <u>tu</u>. <u>Mark-upMarkup</u> on sales tax
- uv. Mark-upMarkup on freight/shipping
- v. Markup on mobilization/demobilization
- w. Markup on lodging and per diem
- x. Markup on subcontractor reports
- 10. Tank tightness tests used for routine release detection
- 11. Technical Guidance Document 013, Fund Eligibility site Site check Check
- 12. Travel
  - a. Any travel outside of the state of Tennessee
  - b. Mileage within Tennessee over 250-300 miles per round trip
  - c. Airfare and/or car rentals
  - d. Company car and/or truck rental
  - e. Markup on per diem and lodging
- 13. Underground locator services (unless service is guaranteed in writing) (unless approved by the Division in writing)

#### VII. PERSONNEL DESCRIPTIONS AND RATES

#### A. Staff Descriptions

Only the job titles and classifications listed below may be used for reimbursement purposes. Any qualified professional who performs a task of a lesser-qualified person should be billed at the rate of that job task. For example, a person who meets the experience and education of a Geologist, but performs the task of digging a trench, hand augering, bailing wells, etc. should be billed at the rate of a Technician. All onsite personnel shall have the appropriate health and safety certifications. Prior to beginning any task, the Excel® cost task\_s and associated cost spreadsheets should be consulted to ensure that the proper personnel and equipment will be used in order to be Fund reimbursable. See section IX for cost task descriptions.

**CAD/GIS** – **Operator:** This person must have the ability to develop scaled maps, engineering drawings, and contour maps using CAD computer programming software. The CAD/GIS computer operator must have a degree in information systems analysis, CAD computer programming, or possess CADapplicable technical certification.

**CAS Specialist:** This person must have attended, received and maintain satisfactory certification from a Division approved manufacturer of high vacuum dual phase remediation systems. Annual recertification is required to bill this title. CAS Specialist Certificate must be submitted to: <a href="mailto:ust.reimbursement@tn.gov">ust.reimbursement@tn.gov</a>

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**Construction Foreman:** This person must have completed all appropriate personal protection and safety courses, have three (3) years' experience in UST or hazardous

substance site work, field supervision experience, and be supervising a construction crew.

**Engineer:** This person must be a professional engineer licensed in the State of Tennessee.

**Environmental Specialist:** This person must have a <u>Bachelor of Arts (BA)</u>, <u>BBachelor of Engineering</u> (BE) or Bachelor of Science (BS) or postgraduate degree in biology, engineering, environmental science, geology, industrial hygiene, soil science, or another science field acceptable to the Division from an accredited four (4) year college <u>and have at least two (2) years of UST related work and/or hazardous substance remedial activities</u>.

**General Laborer:** This person must have <u>current health and safety training.</u> completed the appropriate personal health and safety courses. General laborer includes surveyor helpers, construction workers, and other site workers that have not been included in other billing classifications.

**Geologist:** This person must be a professional geologist licensed in the State of Tennessee.

**Heavy Equipment Operator:** This person must be knowledgeable of the capabilities and limitations of the equipment being used and is familiar with all applicable laws and regulations governing its use. Equipment operators must have current health and safety training.

**Project Manager:** This person must have five (5) years full-time experience in investigation, remedial planning or design phases of environmental project management. This person must have a BE, BS or postgraduate degree in engineering, geology, or other appropriate science. This person must also have supervisory and project management experience. Postgraduate work in an appropriate science may be substituted on a year for year basis for experience for a maximum of two (2) years.

**Secretary:** This person must possess computer skills and carry out general clerical duties, including contract administration and payment of utility bills. Clerical support and other office workers shall be included in this category.

**Senior Environmental Specialist:** This person must have a BA, BE, BS or postgraduate degree in biology, engineering, environmental science, industrial hygiene, soil science, or another science field acceptable to the Division from an accredited four (4) year college and have at least five (5) years of UST related work and/or hazardous substance remedial activities.

**Senior Technician:** This person must have completed appropriate current health and personal safety training, have completed appropriate and sampling courses and have

at least three (3) years of experience working in the environmental field at hazardous substance or UST sites. All technicians must be high school graduates or have passed the general equivalency diploma (GED) test.

**Surveyor:** This person must have the ability to take linear and angular measurements and apply the principles of geometry and trigonometry to delineate the form, extent, position, etc., of a tract of land. This person must be licensed in Tennessee as a surveyor.

**Technician:** This person must have <u>current health and safety training, have completed appropriate sampling courses completed appropriate personal safety and sampling courses and have at least one (1) year of experience working in the environmental field at hazardous substance or UST sites. All technicians must be high school graduates or have passed the general equivalency diploma (GED) test.</u>

**Truck Driver:** This person must be knowledgeable of all Tennessee motor vehicle laws and regulations as well as hold all licenses required for the type of motor vehicle operated.

## B. Table of Reimbursable Tasks

Field Staff Description	Reimbursable Tasks		
CAS Specialist	CAS startup, rRoutine/non-routine O&M, CAS deactivation and/or and/or reactivation of a CAS		
Engineer	Assessment of remedial activities, overseeing drilling and monitoring well installation with appropriate geologic experience, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data, overseeing of MEME events and soil gas survey		
Environmental Specialist	Assessment of remedial activities, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data		
Geologist	Assessment of remedial activities, overseeing drilling and monitoring well installation, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data, overseeing of MEME events and soil gas survey		
Senior Environmental Specialist	Assessment of remedial activities, sampling (soil, water, etc.) through the initial investigation phase, compiling/analyzing environmental data, overseeing of MEME events and soil gas survey		
Senior Technician	Routine sampling (monthly, quarterly, etc. of soil, water, etc.), free product removal, monitoring well abandonment oversight, installation/maintenance of skimmer pumps, O-&-M (routine and non-routine; of a non-state owned CAS), CAS deactivation, and/or reactivation and/or decommissioning a non-state owned CAS		
Technician	Tilling/disking, gauging, installation/replacements of booms/pads, deactivation and/or reactivation of CAS, site restoration, assist with O&M (with Division project manager approval), CAS deactivation, reactivation and/or decommissioningO & M (routine and non-routine) of non-state owned CAS		

## C. Table of Staff Rates

Field Operations Staff	Maximum
	Hourly Rate
Surveyor	\$ <del>65.00</del>
	<u>75.00</u>
Construction foreman	<del>\$50.00</del>
Senior technician	\$55.00

	<u>63.00</u>
Technician	\$ <del>45.00</del>
	<u>52.00</u>
Heavy equipment operator, Truck driver	\$ <del>35.00</del>
	<u>50.00</u>
General laborer	\$30.00
	<u>\$40.00</u>

Technical Staff	Maximum
	<b>Hourly Rate</b>
Project Manager	\$ <del>95.00</del>
	<u>109.00</u>
Engineer, Geologist, Senior Environmental Specialist	\$80.00
	<u>92.00</u>
Environmental Specialist	\$ <del>65.00</del>
	<u>70.00</u>
CAS Specialist	\$ <del>65.00</del>
	<u>75.00</u>
CAD/GIS Operator	\$ <del>50.00</del>
	<u>58.00</u>

Administrative Staff	Maximum Hourly Rate
Secretary	\$30.00
	<u>40.00</u>

#### VIII. REASONABLE REIMBURSEMENT RATES

## A. Equipment

Construction equipment rental rates already include allowances for peripheral equipment attachments, depreciation, maintenance, field repairs, fuel, permits, lubricants, tires, OSHA equipment, insurance, equipment shelter and security, overhead, markup, and administrative costs. If the equipment size is not specified, then the lowest rate will be applied. Equipment mobilization subdivided into three categories based on size/weight.

Excavating Equipment	Per Day	Per Week
Trencher (walk behind) - mobilization charges do not	<del>\$144.00</del>	<del>\$432.00</del>
apply)		
Trencher (ride on)	<del>\$255.00</del>	<del>\$765.00</del>
Skid steer loader (bobcat <u>- Category 1 mobilization)</u>	\$ <del>188.00</del>	\$ <del>564.00</del>
	<u>389.00</u>	<u>1,167.00</u>
Pavement/concrete breaker for bobcat	\$200.00	\$600.00

Backhoe (all types_)- <u>Category 1 mobilization</u> )	\$ <del>255.00</del>	\$ <del>765.00</del>
	430.00	<u>1,290.00</u>
Pavement/concrete breaker for backhoe	\$ <del>275.00</del>	\$825.00
	289.00	<u>867.00</u>
Trackhoe ½ yd³Mini Excavator (Category 1	\$ <del>575.00</del>	\$ <del>1,725.00</del>
mobilization)	427.00	<u>1,281.00</u>
Trackhoe <del>¾ yd<sup>3</sup>&lt;50K lbs (Category 2 mobilization)</del>	\$674.00	\$ <del>2,022.00</del>
	<u>958.00</u>	<u>2,874.00</u>
Trackhoe-1 yd <sup>3</sup> ≥50K lbs (Category 3 mobilization) –	\$834.00	\$ <del>2,502.00</del>
<u>Division approval required</u>	<u>1,220.00</u>	<u>3,660.00</u>
Crawler loader 1 yd <sup>3</sup> (Category 2 mobilization)	<del>\$470.00</del>	<del>\$1,410.00</del>
Dozer	<del>\$468.00</del>	<del>\$1,404.00</del>
Field Tractor and attachment	<del>\$253.00</del>	<del>\$759.00</del>
	590.00	1,770.00
Dump Trailer (Mobilization charges do not apply)	<u>\$159.00</u>	<u>\$477.00</u>
Dump truck 15 yd <sup>3</sup> and larger (w/o driver <u>– mobilization</u>	\$78.00/hr	
charges do not apply)		
Mobilization and Demobilization		Rate
Category 1 Excavation equipment (cost/mile)		\$1.25
Skid steer loader, backhoe, mini excavator		
(Minimum of \$125)		
Maximum ( <del>250</del> <u>300</u> miles round trip)		<u>\$375.00</u>
Category 2 Excavation equipment (cost/mile)	<u>\$2.70</u>	
<u>Trackhoe &lt;50K lbs</u>		
(Minimum of \$270)		
Maximum (300 miles round trip)		<u>\$810.00</u>
Category 3 Excavation equipment (cost/mile)		<u>\$5.00</u>
<u>Trackhoe ≥50K lbs</u>		
(Minimum of \$500)		
Maximum (300 miles round trip)		<u>\$1,500.00</u>

Support Equipment	Per Day	Per Week
5 kW generator	\$ <del>87.00</del>	\$ <del>261.00</del>
	<u>100.00</u>	<u>300.00</u>
50 kW generator	\$ <del>258.00</del>	\$ <del>774.00</del>
	<u>406.00</u>	<u>1,218.00</u>
-3K PSI pressure washer	<del>\$55.00</del>	<del>\$165.00</del>
Explosion proof evacuation fan	\$ <del>75.00</del>	\$ <del>125.00</del>
(12,000 ft <sup>3</sup> /min air movement)	<u>86.00</u>	<u>258.00</u>
(mobilization included in daily rate)		

Miscellaneous Tools And Supplies	Per Day	Per Week
Air jackhammer with bit and hose	\$ <del>60.00</del>	
	<u>71.00</u>	

Electric jackhammer with bit	\$ <del>75.00</del>	
	90.00	
Slide hammer and vapor probe kit	\$ <del>133.00</del>	
	<u>153.00</u>	
Hammer drill and vapor probe kit	\$ <del>195.00</del>	
	<u>224.00</u>	
Crane (17-ton skyhook)	\$ <del>667.00</del>	
	<u>1,028.00</u>	
Plate compactor/tamper	\$ <del>75.00</del>	\$ <del>200.00</del>
	<u>92.00</u>	<u>276.00</u>
Utility trailer	\$ <del>25.00</del>	
	<u>29.00</u>	
Compressor 100 CFM, gas powered	\$ <del>75.00</del>	
	<u>127.00</u>	
Compressor 175 CFM, gas powered	\$ <del>109.00</del>	
	<u>199.00</u>	
Concrete saw (Gas) with blade	\$ <del>90.00</del>	
	<u>131.00</u>	
Hydrocarbon skimmer pump (self-leveling)	\$40.00	\$ <del>120.00</del>
	<u>46.00</u>	<u>138.00</u>
Submersible well development pump (electric) 2-inch	\$ <del>42.00</del>	
diameter	<u>53.00</u>	
Self-priming centrifugal pump (trash)	\$ <del>65.00</del>	
4-inch discharge	<u>81.00</u>	
Welder/supplies/fuel	<del>\$60.00</del>	
Poly Tank (Tasks 4.4.a.11 and 4.4.d.8 only)	<u>\$50.00</u>	
500 gallons of water (Tasks 4.4.a.11 and 4.4.d.8 only)	<u>\$25.00</u>	

Portable Field Instruments	Per Day	Per Week
Combustible gas indicator/with oxygen meter*	\$45.00	<u>150.00</u>
	<u>50.00</u>	
Oxygen meter (dissolved/reduced)water	\$40.00	
OVD PID <u>or FID*</u>	\$89.00	<u>\$150.00</u>
	<u>50.00</u>	
OVD FID	<del>\$105.00</del>	
Multi-gas meter (O <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> )*	<del>\$68.00</del>	<u>\$150.00</u>
	<u>\$50.00</u>	
Oil/water interface probe <u>*</u>	\$ <del>55.00</del>	
	<u>10.00</u>	
Turbidity meter (approved CAP only) - water*	\$31.00	
	<u>10.00</u>	
Electronic water-level indicator <u>*</u>	\$ <del>25.00</del>	
	10.00	

<u>Vacuum Gauge/</u> Manometer <u> air*</u>	\$ <del>25.00</del>	
	<u>10.00</u>	
pH meter (approved discharge only)*	\$ <del>27.00</del>	
	<u>10.00</u>	
<u>Velocity Meter - Air</u>	<u>\$10.00</u>	
Digital or dial vacuum gaugeVelocity meter -air*	\$45.00	
	<u>10.00</u>	
2K to 3K PSI pressure washer*	<del>\$55.00</del>	<del>\$165.00</del>
	<u>\$20.00</u>	
Flow regulator (air samples only)	\$60.00	
	<u>81.00</u>	
SUMMA Canister	\$ <del>50.00</del>	
	<u>69.00</u>	

## \* - considered tools of the trade

Equipment/Supplies	Unit Cost
Disposable bailer	\$10.00
Petroleum absorbent booms (8 inch diameter, 10 ft. sections)	\$55.00
Petroleum absorbent pads ( <u>15" x 20", Light weight,</u> 100 count)	\$70.00
Petroleum absorbent pads ( <u>15" x 20", Heavy weight,</u> -100 count)	\$88.00
Petroleum absorbent sweeps (18" x 100' x 3/8")	\$108.00
Reconditioned drums (17-H, 55-gallon)	<del>\$41.00</del>
Soil and well sampling supplies (includes, but not limited to, ice,	\$ <del>20.00</del>
disposal of samples, twine or string, latex gloves, and	<u>25.00</u>
decontamination materials. These supply costs are per sampling	
event and not per well.)	
0.45 micron water filter (PAHs and metals sampling)	\$20.00
Safety cones, barricades, caution tape	\$10.00/day
Wheat Straw bales	<del>\$5.00</del>
Grass seed (10 lb)	<del>\$10.00</del>

## B. Vehicles

Reimbursement is only for mileage <u>within</u> Tennessee with a <u>maximum</u> 300 miles round trip. <u>If the vehicle size is not specified, the lowest rate will be applied.</u>

Vehicle	Rate
Autos/pick-up trucks (cost/mile)	\$0.47*
Three/quarter (3/4) ton truck (cost/mile)	\$0.75
Vacuum truck/with driver cost/hour	\$138.00

<sup>\*</sup>Mileage shall be reimbursed in accordance with the state of TN travel regulations in e

work was performed. Current travel regulations can be found at:
<a href="https://www.tn.gov/content/dam/tn/finance/documents/fa\_policies/policy8.p">https://www.tn.gov/content/dam/tn/finance/documents/policy8.p</a>
<a href="mailto:dfwww.tn.gov/finance/act/documents/policy8.pdf">dfwww.tn.gov/finance/act/documents/policy8.pdf</a>

Mobilization and Demobilization	Rate
Vacuum truck with driver (cost/mile)	<del>\$2.25</del> <u>\$2.70</u>
(Minimum of \$270.00)	
Maximum billing (300 miles round trip)	\$ <del>562.50</del> \$810.0
-	<u>0</u>

## C. Disposal and Treatment of Contaminated Soil

Contaminated soil and clean soil must be segregated. Disposal of soil with contaminant concentrations below the Division's the applicable Division's Site Specific Clean-up Levels cleanup level (e.g. ISL, RBCL, SSCL) will not be reimbursed. All invoices and weight tickets shall be submitted regardless of the treatment method. Reimbursement will be limited to actual costs plus a maximum 5% markup not to exceed the following rates (additional transportation is reimbursed costs will not be reimbursed, at actual dump truck and driver time will be reimbursed):

Treatment	Per Ton
Land farming	\$ <del>28.00</del> <u>39.00</u>
Landfill	cost + 5%
Transportation (less than 50 miles one way)	<mark>\$11.00</mark>
Transportation (50 – 100 miles one way)	<del>\$20.00</del>
Transportation (over 100 miles one way)	<del>\$24.50</del>

## D. Disposal and Treatment of Contaminated Water

Reimbursement is limited to water treated at a permitted water treatment facility. The Fund will not pay a per gallon rate for water treated on site. Disposal and/or treatment of water with contaminant concentrations below the Division's Initial Screening Levels SLs will not be reimbursed. Original invoices and manifests, including the volume of water treated shall be submitted. Reimbursement will be limited to actual costs plus a maximum 5% markup not to exceed the following rate (rate already includes transportation):

Contents	Per Gallon
Water	\$ <del>0.55</del> <u>0.94</u>

#### E. Drum Disposal of Contaminated Soil and/or Water (includes cost of drum)

Soil and water that is drummed is not considered the most efficient way of handling contamination and will be scrutinized. Disposal and/or treatment of soil and/or water with contaminant concentrations below the Division's Site Specific Clean-upCleanup Levels will not be reimbursed.\_-Reimbursement will be limited to actual costs plus a maximum 5% markup not to exceed the following rates (rates includes transportation):

Contents	Per Drum
Water, soil, used booms, pads, etc.	\$ <del>90.00</del> 200.00
Soil	\$90.00
Used booms, pads, etc.	\$90.00

## F. Drilling

Equipment included in mobilization/demobilization costs are: rig, support vehicles, steam cleaner, grout plant, trailers, and crew.\_—Price per foot costs include: drill rig, set up fee, installation, development, sand, bentonite, cement, flush mount manhole, lock, end plug, casing, and screen. -CACs should negotiate prices with drillers prior to drilling. Reimbursement will be limited to actual costs plus a maximum 15% markup not to exceed the following rates:

Drilling Method and Equipment	Rate
Auger rig/core rig/wash rotary rig/air rotary rig (cost per mile)	\$ <del>3.00</del> <u>5.00</u>
(cost/mile with a maximum of <b>300</b> miles round trip)	
(Minimum of \$500.00)	
Maximum (300 miles round trip)	<u>\$1,500.00</u>
Air Rotary Rig (cost/mile with a maximum of 250 miles round trip)	<del>\$4.25</del>
Auger drilling [cost/foot including two (2) man crew]	
Two (2) inch wells	\$ <del>36.00</del>
	<u>\$42,00</u>
Four (4) inch wells	\$4 <del>5.00</del>
	<u>\$52.00</u>
Air rotary drilling [cost/foot including two (2) man crew]	
Two (2) inch wells	\$4 <del>8.00</del>
	<u>55.00</u>
Four (4) inch wells	\$ <del>57.00</del>
	<u>65.00</u>
Double cased well [cost/foot to drill and install outside casing	
including two (2) man crew, steel casing, and grouting]	
Six (6) inch	\$ <del>64.00</del>
	<u>73.00</u>
Eight (8) inch	\$ <del>76.00</del>

	1
	<u>87.00</u>
Well abandonment (includes licensed well driller, equipment, and	\$ <del>11.00</del>
supplies)(cost/foot)	<u>13.00</u>
Borings (cost/foot)	\$ <del>16.00</del>
	<u>18.00</u>
Split spoon sampling (ASTM-D1586) [cost/two (2) foot sampler]	\$ <del>21.00</del>
	<u>24.00</u>
Continuous sampling [cost/five (5) foot sampler]	\$48.00
	<u>\$55.00</u>
Decontamination of rig and tools (cost/boring includes steam	\$ <del>125.00</del>
cleaner rental)	<u>150.00</u>
Standby time not due to the driller (cost/day with maximum of 1	\$150.00
hour)	
Third man for drilling (cost/hour)	\$30.00
	40.00
Water-tight bolt down manhole (one per well - all sizes)	\$ <del>68.00</del>
	<u>78.00</u>
Centralizers-stainless steel (cost/per unit)	
Two (2) inch	\$ <del>26.00</del>
	<u>30.00</u>
Four (4) inch	\$ <del>28.00</del>
	<u>32.00</u>
Concrete penetration (cost/hole)	\$ <del>99.00</del>
	<u>114.00</u>
Removal of manhole cover and well pad (cost/well)	\$ <del>125</del> . <del>00</del>
	<u>150.00</u>
Recovery well vaults (2'x2'x2') (must actually be removed)	\$300.00
	<u>345.00</u>
1-ton truck with heavy trailer (cost per mile not to exceed 300 miles	<u>\$1.25</u>
round trip – only applicable to days where mobilization charges do	
not apply)	
Freight charges on well installation, drilling supplies, casing, screen,	Actual cost
bentonite, etc.	

Direct Push Technology and Equipment	Rate
Mobilization/demobilization-(cost_per_/mile)	\$ <del>2.35</del> <u>2.70</u>
(Minimum of \$270.00)	
Maximum (300 miles round trip)	<u>\$810.00</u>
Direct push [cost/day including a two (2) man crew]	\$ <del>1,640.00</del>
	<u>1,900.00</u>
Direct push [cost/half-day including a two (2) man crew]	\$ <del>1,240</del> . <del>00</del>
	<u>1,425.00</u>
Soil sample liners (cost/unit)	\$ <del>5.95</del>
	<u>7.00</u>
Soil gas survey sample train using nylon tubing (cost/sample train)	\$ <del>29.00</del>

	33.00
Expendable probe points (cost/unit)	\$ <del>11.00</del>
	<u>13.00</u>
Expendable soil gas probe points (cost/unit)	\$ <del>22.00</del>
	<u>25.00</u>
Temporary well (cost/foot)	\$ <del>5.00</del>
	<u>6.00</u>
Bentonite (cost/50-lb bag)	\$ <del>15.00</del>
	<u>17.00</u>

#### G. Laboratory Analyses

Invoices must include the Facility ID number. -Only analytical results required by the Division will be reimbursed. NPDES, POTW, TCLP, and other required costs associated with approved Division activities will also be reimbursed. If GRO, DRO -and/or EPH are required to be sampled for permit requirements, then you must submit a copy of the discharge approval letter with the reimbursement application.

The chain of custody for the samples should always be submitted with any analytical charges. Samples received by the laboratory above the required temperature of 4 degrees Celsius will not be reimbursed. -When sampling a drinking water supply, the detection limit shall not exceed the established MCL for that constituent. -Any sample that fails to meet minimum detection limits will not be reimbursed. -The following analytical results will be reimbursed at actual cost plus a maximum 15% markup not to exceed the following rates:

Soil Samples		Maximum
Chemical of Concern	Method	Rate (Includes
		Markup)
BTEX, MtBE, Naphthalene	Method 8260B	\$86.00
BTEX, MtBE, Naphthalene, EDB, EDC	Method 8260B	\$ <del>149.00</del>
		<u>136.00</u>
Metals (Cd, Cr, Pb, Ag, Zn)	Method 6010/3050	<del>\$110.00</del>
Lead (Pb) only	Method 6010/3050	<del>\$34.00</del>
TCLP	Method 1311	\$479.00
Extractable Petroleum Hydrocarbons	TN EPH	<u>\$85.00</u>
<u>EPH</u>		

Water Samples		Maximum
Chemical of Concern	Method	Rate (Includes
		Markup)
BTEX, MtBE, Naphthalene	Method 8260B	\$96.00
BTEX, MtBE, Naphthalene, EDB, EDC	Method 8260B	\$146.00
EDB only	Method 8011	\$86.00
PAHs	Method 8270C-SIM/8310	\$ <del>202.00</del>

		150.00
Metals (Cd, Cr, Pb, Ag, Zn)	Method 6010	\$ <del>79.00</del>
, , ,		125.00
Lead (Pb) only	Method 6010	\$ <del>35.00</del>
		<u>25.00</u>
Fe, Mn for groundwater classification	Method 6010NPDES	\$ <del>57.00</del>
		<u>50.00</u>
<u>Discharge Samples per Permit</u>		
Oil & Grease	Method 1664 Revision B	\$58.00
Total suspended solids	Method 160.2	\$21.00
Diesel Range Organics (DRO)	Method 8015	<u>\$85.00</u>
Gasoline Range Organics (GRO)	Method 8015	<u>\$85.00</u>
Extractable Petroleum Hydrocarbons	TN EPH	\$85.00
(EPH)		
Metals (Cd, Cr, Pb) only	Method 6010	<u>\$75.00</u>
LC50 Toxicity Test	Method LC50	\$ <del>1,275.00</del>
		<u>1,175.00</u>
IC25 Toxicity Test	Method IC25	\$ <del>1,390.00</del>
		<u>1,760.00</u>

Air Samples		Maximum
Chemical of Concern	Method	Rate (Includes
		Markup)
BTEX, MtBE, Naphthalene, Isopropyl	Method TO-15	\$295.00
Alcohol		
Percent O <sub>2</sub> and CO <sub>2</sub> (must be analyzed	Method ASTM 1945/1946/	\$ <del>243.00</del>
concurrently from SUMMA® sample	D5314 or EPA Method 3C	<u>110.00</u>
above)		

## H. Travel Expenses and Per Diem

Meals will not be reimbursed without a corresponding hotel/motel receipt. -Only one (1) day of meals will be reimbursed per overnight stay.

Professional Travel/per-diem*	Maximum Lodging Costs	Maximum Meals & Incidental Costs
Davidson (Nashville)	<del>\$122.00</del>	<del>\$66.00</del>
September to November	\$234.00	<u>\$61.00</u>
December to January	<u>\$187.00</u>	<u>\$61.00</u>
February to June	<u>\$230.00</u>	<u>\$61.00</u>
July to August	<u>\$207.00</u>	<u>\$61.00</u>

Shelby (Memphis)	\$ <del>99.00</del> 123.00	\$61.00
Williamson (Brentwood/Franklin)	\$ <del>102.00</del> 125.00	\$ <del>56.00</del> <u>61.00</u>
Hamilton (Chattanooga)	\$ <del>95.00</del> 109.00	\$ <del>56.00</del> <u>61.00</u>
Knox (Knoxville)	\$ <del>90.00</del> 102.00	\$56.00
All other counties	\$ <del>83.00</del> 96.00	\$4 <del>6.00</del> <u>55.00</u>

Professional Travel Time	Maximum Hours
One-way per trip based on professional staff description	<u>23</u>
and rate	
Round trip based on professional staff description and rate	4 <u>6</u>

<sup>\*</sup>Lodging and per diem shall be reimbursed in accordance with the state of TN travel regulations in effect at the time that the work was performed. Current travel regulations can be found at:

https://www.tn.gov/content/dam/tn/finance/documents/fa\_policies/policy8.pd f-www.tn.gov/finance/act/documents/policy8.pdf

#### I. Other

Each task provides a <u>maximum</u> cost. This cost represents the maximum the Division <u>may</u> reimburse if the work is acceptable and conducted as approved. Only actual charges, not the maximum, will be reimbursed. For example, a task may <u>provide</u> <u>allow</u> a maximum of up to ten (10) hours to conduct the work but the actual work performed by contractor personnel was five (5) hours. Only five (5) hours may be requested for reimbursement.

A detailed time sheet and/or field log/book shall be kept for every UST task conducted although they may not be required to be submitted with the application.\_-The Division may request these to verify claim amounts. –Time reporting should be broken into fifteen (15) minute increments (i.e. 0.25 hr; 1.75 hrs; etc.). Any other time increments will not be properly calculated by the reimbursement database.

#### **LXVIII. TASK DESCRIPTIONS**

#### 1.0 UST SYSTEM CLOSURE PROCESS

#### **TASK 1.1 Over-excavation**

#### 1.1.a Cost for excavating soil and stockpiling during UST Closure

This SOWtask will include all necessary personnel and labor, equipment and supplies to excavate, screen, collect samples and properly stockpile contaminated soil during an UST system closure as per Closure Assessment Guidelines. Cost includes all sampling supplies. –This SOWtask includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample quality assurance/quality control (QA/QC), and invoice managing). Reimbursement is limited to excavation and stockpiling of contaminated soil. –Soil contamination as defined by the applicable Closure Guidelines must be documented by an approved state of Tennessee laboratory method. –Routine over-excavation shall not exceed three (3) workdays (maximum-10-hour workday) without prior approval from the appropriate Field Office. Division project manager.

Maximum Personnel cost is \$180.00 hourly, per hour for on-site personnel (or \$1,800.00 not to exceed \$2,429.00 per day.) and

Maximum equipment cost is \$3,009.00 \$2,283.00 per day equipment rental.

## 1.1.b Cost for mobilization and demobilization of heavy equipment

This SOWtask will include mobilization and demobilization of the trackhoe or backhoe to and from the site.

Maximum cost <u>for category 1 equipment</u> is <u>limited to \$1.25 per mile</u> <u>\$375.00 (\$1.25/mile)</u>. <u>per piece of equipment not to exceed \$312.50</u>.

Maximum cost for category 2 equipment is \$810.00 (\$2.70/mile).

Maximum cost for category 3 equipment is \$1,500.00 (\$5.00/mile) and must obtain prior Division approval.

#### 1.1.c Cost for loading stockpiled contaminated soil for disposal

This <u>SOWtask</u> will include all necessary personnel and labor, equipment, and supplies for loading petroleum contaminated soil for proper disposal at a permitted facility. <u>—The volume of the contaminated material requested</u>

for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report.

Routine loading shall not exceed one (1) workday (maximum—10-hour workday).

Personnel cost is hourly not to exceed \$2,820.00 per day.

Maximum cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) <u>Maximum equipment cost is and \$1,984.00 \$3,038.00</u> per day equipment rental.

#### 1.1.d Cost for laboratory services

This SOWtask will include any soil laboratory analysis not associated with a boring or monitoring well installation. These samples may include, but are not necessarily limited to, samples from a tank pit, samples of a stockpile for disposal or treatment, interceptor trench, or samples that are obtained by hand augering. The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. Consultant CAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant CAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method, established in Reference 1.

## 1.1.e Cost for replacement backfill material during any type of overexcavationover-excavation

This SOWtask consists of the cost for replacement backfill material to properly backfill the contaminated area(s) of the tank pit and/or associated piping trench(s) with a like material.—The volume of the backfill material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report minus the volume of the tank void.—Backfill must be acquired/purchased locally whenever possible.

Cost plus 15% markup which includes transportation costs.

## 1.1.f Cost for backfilling the tank pit and/or associated piping trench(s) during overexcavation

This <u>SOWtask</u> consists of all necessary personnel and labor, equipment and materials to properly backfill the contaminated area(s) of the tank pit and/or associated piping trench(s). Routine backfilling shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the <u>appropriate Field OfficeDivision project manager</u>.

Personnel cost is hourly not to exceed \$2,820.00 per day.

Maximum <u>equipment</u> cost is \$180.00 per hour for on-site personnel (or \$1,800.00 per day) and \$3,009.00 \$3,013.00 per day equipment rental.

#### 1.0 UST SYSTEM CLOSURE PROCESS

#### Task 1.2 Ground Waterwater/Free Product Removal

# 1.2.a Cost for removing contaminated ground watergroundwater and/or free product using a vacuum/pump truck

This SOWtask will include all necessary equipment (such as a vacuum or pump truck) and personnel time (such as truck driver, or technician and CAC), to monitor the removal of contaminated ground watergroundwater and/or free product from a tank excavation, pit, trench, vault, etc. Ground—water contamination as defined by the applicable Closure Guidelines must be documented by an approved state of Tennessee laboratory method. This SOWtask does not include the cost of laboratory analyses of samples collected. Routine ground watergroundwater/free product removal shall not exceed eight ten (810) hours without prior Division approval.

Maximum cost is \$218.00 \$230.00 per hour (or \$1,744.00 \$2,300.00 per day).

#### 1.2.b Cost for mobilization and demobilization of vacuum/pump truck

This <u>SOWtask</u> will include mobilization and demobilization of the vacuum truck or pump truck to and from site for <u>ground watergroundwater</u>/free product removal.

Maximum cost is limited to \$810.00 \$2.25 (\$2.70/per mile). Total maximum cost of \$562.50.

## 1.2.c Cost for inspecting/sampling tank pit for ground watergroundwater recharge

This SOWtask will include any personnel time and all sampling supplies to inspect and/or collect a ground watergroundwater sample for laboratory analysis from a tank pit, utility trench, or interceptor trench. This SOWtask includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). Maximum on-site personnel time limited to two (2) hours. (Do not use the Sampling button in the cost database to enter costs for this task).

Maximum number of samples is two (2) per tank pit and/or two (2) per installation.

Maximum cost is \$150.00 \$171.00 per event.

### 1.2.d Cost for laboratory services

This SOWtask will include any ground watergroundwater laboratory analysis not associated with a boring or monitoring well installation. The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. Consultant CAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultantCAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

# 1.2.e Cost for disposal of free product and/or ground watergroundwater contaminated with petroleum product

This SOWtask consists of disposal of free product and/or ground watergroundwater contaminated with petroleum product removed from a tank pit, trench, etc. The volume of free product and/or ground watergroundwater contaminated with petroleum product requested for reimbursement must agree with the volume documented in the Permanent Closure Report. Ground-water contamination as defined by the applicable Closure Guidelines must be documented by an approved state of Tennessee laboratory method. The Fund will not pay a per gallon rate for water treated on site.

Reimbursement will be limited to actual costs plus a maximum of 5% markup not to exceed \$0.55 \$0.94 per gallon.

#### 1.0 UST SYSTEM CLOSURE PROCESS

## **Task 1.3 Soil Treatment/ Disposal**

# **Task 1.3.a Soil Treatment by Aeration**

(This method of soil treatment is only allowed for gasoline impacted soil.)

# 1.3.a.1Cost for mobilization and setup for treatment of contaminated soil by aeration

This <u>SOWtask</u> will include either on-site or off-site natural attenuation of petroleum-contaminated soil by aeration. This method of soil treatment is <u>only allowed for gasoline impacted soil.</u>—This <u>SOWtask</u> will include all necessary hauling, personnel and labor, equipment, and supplies (i.e. plastic sheeting, straw bales, etc.). .). The volume of the contaminated material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report.

Maximum cost is \$2,160.00 \$2,790.00 per closure event and/or approved application, plus applicable equipment, mobilization/demobilization charges.

# 1.3.a.2Cost for tilling and/or disking of contaminated soil

This SOWtask consists of tilling and/or disking the petroleum contaminated soil generated at underground storage tank sites. Tilling and/or disking shall be conducted at a minimum of once per month and not to exceed two (2) times a month. Routine tilling and/or disking shall not exceed four hours on site time. Cost includes personnel and equipment.

Maximum cost is \$395.00 \$790.00.

#### 1.3.a.3 Cost for inspecting and maintaining the integrity of the treatment cell

This <u>SOWtask</u> will include all personnel time and equipment necessary to inspect and maintain the integrity of the treatment cell not to exceed one (1) time per month. Routine inspecting and/or maintaining shall not exceed four (4) hours on site technician time. Cost includes all personnel time, replacement of plastic sheeting, straw bales, etc. <u>shall be purchased as needed and receipts provided.</u>

Maximum personnel cost is \$405.00 \$208.00 per event.

# 1.3.a.4Cost for sampling soil treated by aeration

This SOWtask will include sampling the treated soil in accordance with Technical Guidance Document (-TGD)-009 and the approved application. This SOWtask includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). Sampling events shall be performed at a minimum, semi-annually and have prior written approval by the Division. Routine sampling shall not exceed two (2) hours on site personnel time. Cost includes all personnel time, a PID/FID, and all sampling supplies.

This is a lump sum task with a Mmaximum cost is cost of \$235.00 \$201.00 per event.

# 1.3.a.5 Cost for laboratory services

This SOWtask will include any soil laboratory analysis from a treated stockpile. Consultant The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. CAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant CAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method, established in Reference 1.

#### 1.0 UST SYSTEM CLOSURE PROCESS

## **Task 1.3 Soil Treatment/ Disposal**

## Task 1.3.b Hauling and Soil Disposal by Landfilling

This task may also be used anytime excavated petroleum contaminated soil is disposed at a landfill.

# 1.3.b.1Cost of scheduling for hauling and landfilling petroleum contaminated soil

This SOWtask will include all necessary contracting and scheduling for disposal of petroleum contaminated soil at a permitted landfill facility. Work shall not exceed two (2) hours.

Maximum cost is \$95.00 per hour.

Maximum cost is \$190.00 \$218.00 per event.

# 1.3.b.2Cost for hauling petroleum contaminated soil

This task will include all necessary personnel and equipment, to haul soil to a permitted his SOW will include all costs necessary for hauling (including driver) petroleum contaminated soil to a permitted landfill. Disposal of soil with contamination levels below the Division's site-specific cleanup levels will not be reimbursed. The most cost effective alternative (including transportation) must be chosen. Backup documentation must include original invoices and weight tickets. Trucks filled to their maximum legal capacity.

Maximum cost is \$123.00 per hour for each truck and driver for a maximum of \$1,230.00 per day for each truck and driver.

#### 1.3.b.3Cost for disposal of petroleum contaminated soil

This <u>SOWtask</u> will include all costs necessary for disposal of petroleum contaminated soil at a permitted landfill. <u>Disposal of soil with contamination levels below the Division's site-specific cleanup levels will not be reimbursed. Reimbursement will be limited to actual costs plus a maximum 5% markup.</u>

#### 1.3.b.4Cost for disposal of petroleum contaminated soil in drums

This <u>SOWtask</u> will include all necessary personnel and labor, equipment and supplies to properly dispose petroleum contaminated soil in drums at a permitted disposal facility. This cost <u>is includes drum, for disposal, and transport only.</u>

Maximum cost is \$90.001200.00 per drum.



#### 1.0 UST SYSTEM CLOSURE PROCESS

## **Task 1.3 Soil Treatment/ Disposal**

## **Task 1.3.c Soil Treatment by Landfarming**

#### 1.3.c.1 Cost of scheduling for landfarming petroleum contaminated soil

This SOWtask will include all necessary contracting and scheduling for disposal of petroleum contaminated soil at a permitted land farm facility. -Work not to exceed two (2) hours.

Maximum cost is \$95.00 per hour.

Maximum cost is \$190.00 \$218.00 per event.

## 1.3.c.2 Cost for hauling petroleum contaminated soil

This SOWtask will include all necessary hauling, personnel and labor, equipment, and supplies for landfarming petroleum contaminated soil at a permitted land farm. The volume of the contaminated material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report. to haul soil to a permitted landfarming facility. Fill the trucks to their maximum legal capacity.

Maximum cost is \$123.00 per hour for each truck and driver for a maximum of \$1,230.00 per day for each truck and driver.

Treatment	Per Ton
Transportation (less than 50 miles)	<del>\$11.00</del>
Transportation (50 – 100 miles)	<del>\$20.00</del>
Transportation (over 100 miles)	<del>\$24.50</del>

# 1.3.c.3 Cost for landfarming of petroleum contaminated soil

This SOWtask will include all necessary personnel and labor, equipment, and supplies for landfarming petroleum contaminated soil at a permitted land farm. The volume of the contaminated material requested for reimbursement must agree with the amount of the contaminated area during the closure as reported in the Permanent Closure Report.

Maximum cost is \$28.00 \$39.00 per ton.

#### 1.0 UST SYSTEM CLOSURE PROCESS

#### **Task 1.4 TRBCA Closure Process**

#### 1.4.a Cost for scheduling drilling event

This SOWtask will include all necessary contracting and scheduling for a driller to perform all phases of drilling (i.e. soil borings, installation of monitoring wells, perform well development, boring abandonment, and various other drilling tasks as needed). This SOWtask shall include the scheduling of field activities associated with the drilling event, including locating all underground utilities. This SOWtask shall also include all personnel cost necessary to acquire all well permits from the appropriate agency.

Maximum cost is \$285.00 \$327.00.

## 1.4.b Cost for supervision of field\_work

This SOWtask shall include oversight of field activities as well as office support and coordination. This SOWtask includes one (1) field person, either a licensed professional geologist under the Tennessee Geologist Licensure Act of 2007 (T.C.A. §62-36-101 et seq.), or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.), and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, PID/FID, water level indicator/interface probe, and all sampling supplies. Included in the SOWtask, the consultantCAC is required to complete all boring logs, well construction records, and collect all necessary soil samples including samples for soil disposal. Supervisory time should not exceed drilling time.

Maximum cost per day is \$1,075.00 \$1,114.00.

#### 1.4.c Cost for mobilization/demobilization of drill rig

This <u>SOWtask</u> will include mobilization and demobilization of the <u>drill rig</u>, <u>support vehicles</u>, <u>steam cleaner</u>, <u>grout plant</u>, <u>trailers</u>, <u>and crewdrill rig</u> to and from the site. Mobilization/demobilization is not to exceed <u>250–300</u> miles round trip.

Maximum cost is limited to \$3.00 \$5.00 per mile (\$500 minimum) not to exceed a total cost of \$750.00 \$1,500.00 for an auger rig.

Maximum cost is limited to \$4.25 per mile not to exceed a total cost of \$1,062.50 for an air rotary rig.

### 1.4.d Cost for drilling

This SOWtask will include support vehicles, steam cleaner, grout plant, trailers, and crew. Along with the invoice, tThe consultantCAC must submit the drilling invoice with the reimbursement requestappropriate reimbursement forms. All monitoring wells shall be installed and abandoned by a TN licensed well driller. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultantCAC uses their own driller. All wells are required to be properly developed prior to sampling. This includes surge blocking where needed.

## 1.4.e Cost for well development

This SOWtask will include all necessary personnel (TN licensed geologist, TN licensed engineer, senior environmental specialist, environmental specialist, or senior technician), labor, equipment and supplies to properly develop wells in accordance with the EAG twenty-four (24) hours after installation, does not include drum costs.

Maximum cost per day is \$496.00 \$402.00.

## 1.4.f Cost for ground watergroundwater sampling

This task includes all personnel time to collect static water level measurements, calculate purge volumes, sample wells of any depth or diameter, and sampling of purge water for disposal. This task also includes personnel time to This SOW includes all personnel time to purge and sample wells of any depth or diameter. This SOW includes static water level measurements and purge volume calculations. This SOW includes all ground watergroundwater sampling for primary and secondary Drinking Water Standards as required in the EAG. This SOW includes sampling of purge water for disposal. This SOW includes personnel time and supplies to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing). Does not include drum costs.Includes cost of drum.

This is a lump sum task with a maximum cost is of \$273.50 \$298.50 for one (1) well.

#### 1.4.g Cost for laboratory services

<u>This SOWtask</u> includes laboratory costs associated with all sampling of soil and/or water. <u>ConsultantThe CAC must submit the laboratory invoice and</u>

completed chain of custody form with the reimbursement request. CAC must attach submit the laboratory invoice and chain of custody to with the reimbursement requestform. Only analytical test(s) required by the current Closure Assessment Guidelines will be reimbursed. -The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultantCAC uses their own lab. Transportation/shipping costs to the laboratory should be included in this task.

Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

## 1.4.h Cost for water use and Karst survey

This <u>SOWtask</u> includes preparation of a water use and Karst survey in accordance with the EAG. This <u>SOWtask</u> includes all field\_work, telephone contacts and records search. This <u>SOWtask</u> includes the completion of the Water Use Survey Sheets.\_\_\_\_This task is not repeatable unless requested/approved by the Division.

Maximum cost is \$890.00 \$1,040.00.

# 1.4.i Cost for disposal of free product and/or ground watergroundwater contaminated with petroleum product

This SOWtask will include all necessary personnel and labor, equipment and supplies to properly dispose of free product and/or ground watergroundwater contaminated with petroleum product removed from a monitoring well. Ground-water contamination must be documented by an approved state of Tennessee laboratory method. This cost includes cost of drum, is for disposal, and transport only.

Maximum cost is \$90.00 \$200.00 per drum.

#### 1.4.j Cost for disposal of petroleum contaminated soil

This <u>SOWtask</u> will include all costs necessary for disposal of petroleum contaminated soil at a permitted landfill. **Disposal of soil with contamination levels below the Division's site-specific cleanup levels will not be reimbursed. Reimbursement will be limited to actual costs plus a maximum 5% markup.** 

## 1.4.k Cost for disposal of petroleum contaminated soil in drums

This <u>SOWtask</u> will include all necessary personnel and labor, equipment and supplies to properly dispose petroleum contaminated soil in drums at a permitted disposal facility. -This cost <u>is for includes cost of drum,</u> disposal, <u>and transport only</u>.

Maximum cost is \$90.00 \$200.00 per drum.



# <u>Task 2.1 Interceptor/Recovery Trench Installation (with Division approval only)</u>

#### 2.1.a Cost for interceptor/recovery trench design and approval

This <u>SOWtask</u> will include all personnel time to prepare a map for the proposed interceptor/recovery trench layout, plus cross sections and details as needed for proper construction. This <u>SOWtask</u> will include any project coordination time including cost estimates, equipment procurement/rental, and meeting with the responsible party and state regulators.

Maximum cost is \$605.00 \$713.00.

#### 2.1.b Cost for mobilization and demobilization of heavy equipment

This <u>SOWtask</u> will include mobilization and demobilization of the trackhoe or backhoe to and from the site.

Maximum cost is limited to \$1.25 per mile for a backhoe not to exceed \$375.00 or \$2.70 per mile for a trackhoe not to e per piece of equipment not to exceed \$312.50 \$810.00.

#### 2.1.c Cost for interceptor/recovery trench installation

This SOWtask will include all necessary personnel and labor, equipment and supplies to excavate, properly install and collect samples from a passive interceptor/recovery trench. Cost includes location of utilities and removal of any concrete, asphalt and/or soil during installation. Cost also includes all sampling supplies, and equipment and trench supplies such as a trackhoe or backhoe, well screens, piping, and sumps. Routine installation shall not exceed one (1) workday (maximum 10-hour work dayworkday) without prior approval from the appropriate Field OfficeDivision project manager.

<u>Personnel Maximum cost is hourly \$180.00 per hour for on-site personnel (or \$1,800.00 not to exceed \$2,320.00 per day.) and</u>

Maximum equipment cost is\$2,494.00 \$2,594.00 per day equipment.

#### 2.1.d Cost for loading stockpiled contaminated soil for disposal

This SOWtask will include all necessary personnel and labor, equipment, and supplies for loading petroleum contaminated soil for proper disposal at a permitted facility. The volume of the contaminated material requested for reimbursement must agree with the volume of the contaminated area

<u>during the installation as reported in the Initial Response and Hazard Management Report.</u> Routine loading shall not exceed one (1) workday (maximum 10-hour work dayworkday).

<u>Personnel Maximum cost is \$180.00 per hourly for on-site personnel (or \$1,800.00 not to exceed \$2,320.00 per day.)</u>

<u>Maximum equipment cost is \$1,984.00 \$2,238.00 per day equipment rental.</u>

# 2.1.e Cost for replacement backfill material during any type of excavation

This SOWtask consists of the cost for replacement backfill material to properly backfill the contaminated area(s) of the tank pit and/or associated piping trench(s) with a like material. The volume of the backfill material requested for reimbursement must agree with the volume of the contaminated area during the closure as reported in the Permanent Closure Report minus the volume of the tank voidtrench. Backfill must be acquired/purchased locally whenever possible.

Cost plus 15% markup which includes transportation costs.

# 2.1.f Cost for repair/replacement of asphalt after interceptor/recovery trench installation

This <u>SOWtask</u> will include all personnel and labor, equipment and supplies to properly restore trench location to a condition comparable to the original condition.

Maximum cost is \$2.32 per square foot for asphaltcost of the bid plus 15% markup. Submit bid and applicable change orders to the Division and obtain approval in writing.

# 2.1.g Cost for repair/replacement of concrete after interceptor/recovery trench installation

This SOWtask will include all personnel and labor, equipment and supplies to properly restore trench location to a condition comparable to the original condition.

Maximum cost- of the bid plus 15% markup. Submit bid and applicable change orders to the Division and obtain approval in writing is \$3.75 per square foot for concrete.

# 2.1.h Cost for repair/replacement of landscaping after interceptor/recovery trench installation

This <u>SOWtask</u> will include all personnel and labor, equipment and supplies to properly restore trench location to a condition comparable to the original condition utilizing seed, mulch and straw by hand. <u>Seed, mulch, and straw shall be purchased as needed and receipts provided.</u>

Maximum-Personnel cost is \$260.00 hourly and not to exceed \$104.00.

# 2.1.i Cost for backfilling the void and/or associated trench(s) during excavation

This SOWtask consists of all necessary personnel and labor, equipment and materials to properly backfill the void area(s) and/or associated trench(s). Routine backfilling shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate Field Office Division project manager.

<u>Personnel Maximum cost is \$180.00 per hourly for on-site personnel (or not to exceed \$1,800.00 \$2,820.00 per day).</u>

Maximum equipment cost is and \$3,009.00 \$3,043.00 per day equipment rental.

<u>Task 2.2 Ground Waterwater/Free Product Removal from an Interceptor/Recovery Trench (with Division approval only)</u>

2.2.a Cost for removing contaminated ground watergroundwater and/or free product using a vacuum/pump truck from an interceptor/recovery trench

This SOWtask will include all necessary equipment (such as a vacuum or pump truck) and personnel (such as truck driver, CAC or technician), to monitor the removal of contaminated ground watergroundwater and/or free product from an interceptor/recovery trench installation. Ground-water contamination must be documented by an approved state of Tennessee laboratory method. This SOWtask does not include the cost of laboratory analyses of samples collected.

Maximum cost is \$193.00 \$201.00 per hour (or \$1,544.00 \$2,010.00 per day).

2.2.b Cost for mobilization and demobilization of vacuum/pump truck

This <u>SOWtask</u> will include mobilization and demobilization of the vacuum truck or pump truck to and from site.

Maximum cost is limited to \$2.25 \$2.70 per mile, with Total maximum cost of up to \$562.50 \$810.00.

2.2.c Cost for ground watergroundwater sample collected for laboratory analysis and supplies (not associated with a boring/monitoring well)

This SOWtask will include any personnel time and sampling supplies to collect a ground watergroundwater sample for laboratory analysis during interceptor/recovery trench installation. This SOWtask includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). Maximum on-site personnel time limited to two (2) hours.

Maximum number of samples is two (2) per tank pit trench and/or two (2) per installation.

Maximum cost is \$150.00 \$171.00 per event.

2.2.d Cost for laboratory services

This SOWtask will include any ground watergroundwater laboratory analysis collected during interceptor/recovery trench installation. The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. CAC must submit the laboratory invoice and chain of custody with the reimbursement request.. ConsultantCAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. -A markup will not be allowed if the consultantCAC uses their own lab.\_-Maximum costs shall not exceed the reasonable reimbursable rates as determined by the method established in Reference applicable laboratory Transportation/shipping costs to the laboratory should be included in this task.

Maximum number of samples is two (2) per tank pittrench and/or two (2) per installation.

# 2.2.e Cost for disposal of free product and/or ground watergroundwater contaminated with petroleum product

This SOWtask consists of disposal of free product and/or ground watergroundwater contaminated with petroleum product removed from a tank pit, trench, etc. The volume of free product and/or ground watergroundwater contaminated as defined by the applicable Closure Guidelines requested for reimbursement must agree with the volume documented in the Initial Response and Hazard Management Report. Ground-water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for disposal only. The Fund will not pay a per gallon rate for water treated on site.

Reimbursement will be limited to actual costs plus a maximum of 5% markup not to exceed \$0.55-\$0.94 per gallon.

### 2.2.f Cost for obtaining a temporary permit to POTW

This <u>SOWtask</u> will include all personnel and labor to coordinate and prepare a permit application required by local POTW for temporary discharge of contaminated petroleum <u>ground watergroundwater</u>.

Maximum cost is based on the actual permit fee required per municipality plus a maximum of two (2) hours personnel time (not to exceed \$160.00 \$184.00).

# 2.2.g Cost for obtaining a ground watergroundwater sample collected to meet POTW discharge requirements

This SOWtask will include all personnel and labor to collect a ground watergroundwater sample for laboratory analysis to meet/establish POTW discharge permit requirements. This SOWtask includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). The sampling frequency and sampling and laboratory analytical requirements requirements for shall be in accordance with the approved discharge permits shall be performed according to the approved federal, state, and/or local government agency requirements. Maximum number is one (1) sample per discharge.

This is a <u>lump sum task with a mMaximum cost is of \$75.00 \$88.00</u> per required sample.

## 2.2.h Cost for discharge to POTW

This <u>SOWtask</u> will include all costs associated with the discharge of <u>ground</u> <u>watergroundwater</u>/free product under the approved POTW permit.\_—**The** amount requested for reimbursement should agree with the volume (in gallons) reported discharged in the POTW report.

Maximum cost is based on the actual discharge fee per gallon as charged by the POTW.

# Task 2.3 Free Product Removal by Hand Bailing (with Division approval only)

#### 2.3.a Cost for removing free product by hand bailing

This SOWtask will include all necessary personnel and labor, equipment (such as a gloves, bailers, twine, oil-water interface probe, and 55-gallon reconditioned drum) and labor (senior technician) to remove free product from a monitoring well or observation well and properly store when encountered. This SOWtask includes measurement and recording of ground watergroundwater depths and product thickness in each well. -Work is not to exceed 8 hours. -Task is limited to a maximum of two (2) events per month. Duration is not to exceed three (3) months unless otherwise directed by the Division.

Maximum cost is \$55.00 per hour (or a maximum of \$596.00 \$579.00 per event).

## 2.3.b Cost for disposal of free product

This <u>SOWtask</u> consists of transportation and disposal of contaminated petroleum product removed from a monitoring well or observation well. This cost <u>is forincludes drum</u>, disposal, <u>and transport-only</u>.

Maximum cost is \$90.00 \$200.00 per drum.

# Task 2.4 Mobile Enhanced Multi-phase Extraction (MEME)

## 2.4.a Cost for initial project setup

This SOWtask will consist of review of the existing site data, and coordination and scheduling the MEME event.

Maximum cost is \$160.00 \$184.00 per event.

#### 2.4.b Cost for mobilization and demobilization of vacuum truck

This SOWtask will include mobilization and demobilization of the vacuum truck or pump truck to and from site. Mobilization/demobilization is not to exceed 250\_300 miles round trip.

Maximum cost is limited to \$2.25 \$2.70 per mile per piece of equipment for the vacuum or pump truck. Total maximum cost, not to exceed of \$562.50 \$810.00.

# 2.4.c Cost for supervision of 8-hour MEME event field work

This SOWtask will include all personnel time for the supervision of one (1) complete 8-hour MEME event. This SOWtask includes one (1) field person to oversee MEME activities and assemble the sample train for a maximum of two (2) hours onsite. This task includes, if not conducted by the MEME contractor, tabulating results (free product and groundwater measurements before and after the event plus vacuum pressure on affected wells during the event), recording the amount of product and water recovered, vacuum radius of influence, ensuring all readings by the MEME contractor is obtained, etc.

Maximum cost is \$160.00 \$1,054.00.

#### 2.4.d Cost for performing an 8-hour MEME event

This SOWtask will include the setup and performance of one (1) 8-hour MEME event according to the approved application. This SOWtask will include personnel and equipment to perform one (1) eight (8) hour MEME event. This SOWtask includes tabulating results (free product and ground watergroundwater measurements before and after the event plus vacuum pressure on affected wells during the event), recording the amount of product and water recovered, vacuum radius of influence, etc. Required equipment also includes instrumentation for measuring temperature, velocity, relative humidity, and the concentration of emissions, the amount of product and

<u>water recovered</u>. Cost includes two (2) hours allowed for set-up and shut down and eight (8) hours for the actual MEME event.<u>includes up 6 hrs travel time.</u>

Maximum cost is bid plus 15% markup. Submit as a lump sum bid and applicable change orders to the Division and obtain approval in writing. This is a lump-sumlump sum task with a mMaximum cost is of \$3,125.50 per 8-hour event.

## 2.4.e Cost for performing a 24-hour MEME event

This SOWtask will include the setup and performance of one (1) 24-hour MEME event according to the approved application. This SOWtask will include personnel and equipment to perform one (1) twenty four hour MEME event. This SOWtask includes tabulating results (free product and ground watergroundwater measurements before and after the event plus vacuum pressure on affected wells during the event), recording the amount of product and water recovered, vacuum radius of influence, etc. Required equipment also includes instrumentation for measuring temperature, velocity, relative humidity, and the concentration of emissions. Cost includes one (1) Eng./Geo./Sr. Env. Spec or CAS Specialistsenior technician onsite for 26 hours: two (2) hours allowed for set-up and shut down and 24 hours for the actual MEME event.

Maximum cost is bid plus 15% markup. Submit as a lump sum bid and applicable change orders to the Division and obtain approval in writing This is a lump-sumlump sum task with a mMaximum cost is of \$6,642.50 per 24-hour event.

# 2.4.f Cost for disposal of free product and/or ground watergroundwater contaminated with petroleum product

This SOWtask consists of disposal of free product and/or ground watergroundwater contaminated with petroleum product removed during a MEME event. —The volume of free product and/or ground watergroundwater contaminated with petroleum product requested for reimbursement must agree with the volume documented in the MEME Report.

Reimbursement will be limited to actual costs plus a maximum of 5% markup not to exceed \$0.55 \( \frac{\$0.94}{2} \) per gallon.

### 2.4.g Cost for free product assessment after an 8-hour MEME event

This <u>SOWtask</u> includes measurement and recording of <u>ground</u> <u>watergroundwater</u> depth and product thickness of each well after a free product recovery event. The intent of this <u>SOWtask</u> is to determine if the free product recovery method should be continued. A recommendation shall be provided as to the status of free product in the wells and the most appropriate course of further action. Cost includes personnel and labor, equipment and supplies.

Maximum cost is \$352.50 \$313.50 per event.

# 2.4.h Cost for laboratory services

This SOWtask includes laboratory costs associated with all sampling of influent groundwater. —ConsultantCAC must submit the laboratory invoice and chain of custody with the reimbursement request. CAC must attach the laboratory invoice to the reimbursement form. —The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultantCAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

### 2.4.i Cost for supervision of 24-hour MEME event field work

This <u>SOWtask</u> will include all personnel time for the supervision of one (1) complete MEME event. This <u>SOWtask</u> includes one (1) field person to oversee 24-hour MEME activities, <u>assembly assemble of the</u> sample train and collect<del>ion of the</del> influent water sample for a maximum of four (4) hours.

Maximum cost is \$320.00 \$2,104.50.

## Task 2.5 Free Product Recovery on Surface Water

#### 2.5.a Cost for installation of absorbent pads and/or booms on surface water

This SOWtask will include all personnel time to install/lay booms or absorbent pads (up to 50) to recover free-floating product from impacted surface waters. Personnel time includes time for two (2) employees [one (1) senior technician and one (1) technician]. This SOWtask includes all field materials used including absorbent booms, absorbent pads, polypropylene rope, steel fence posts, and field supplies.

Maximum cost is \$260.00 \$333.00 per event.

#### 2.5.b Cost for boom inspection and replacement

This <u>SOWtask</u> will include all personnel time [for one (1) senior technician and one (1) technician] and materials to replace and/or repair absorbent booms placed on surface water to recover free product. **Task is limited to two (2)** times per month. **Duration is not to exceed three months unless otherwise directed by the Division.** 

Maximum cost is \$210.00 \$283.00 per event.

#### 2.5.c Cost of drums for spent booms and/or absorbent pads

This SOW<u>task</u> will include all personnel time for purchasing and delivery of required drums to store used booms and/or absorbent pads. This SOW<u>task</u> does not includes cost of drum. This SOW<u>task</u> also includes properly sealing and labeling drums.

Maximum cost is \$96.00 \$63.00.for initial drum and \$41.00 per additional drums.

# 2.5.d Cost for \_disposal of drums filled with spent booms and/or absorbent pads

This <u>SOWtask</u> will include all necessary personnel and labor, equipment and supplies to properly dispose of drums filled with spent booms and/or absorbent pads at a permitted disposal facility. This cost is for <u>drum</u>, disposal, <u>and transport-only</u>.

Maximum cost is \$90.00 \$200.00 per drum.

# 2.5.e Cost for specifying and purchasing a passive skimmer

This SOWtask will include all necessary personnel time to properly specify and purchase a passive skimmer system to remove free product from surface water. Professional hours are limited to one engineers, geologists, senior environmental specialist not to exceed two (2) hours. Prior written approval from the Division case managerproject manager required. Cost of skimmer system is not to exceed \$1,300.00/each.

Maximum cost is \$1,460.00 \$1,484.00.

## 2.5.f Cost for installation of a passive skimmer

This <u>SOWtask</u> will include all necessary personnel (senior technician) and equipment to install a passive skimmer system to remove free product from surface water. **Work is not to exceed 2 hours.** 

Maximum cost is \$110.00 \$126.00.

#### 2.5.g Cost for servicing a passive skimmer

This <u>SOWtask</u> will include emptying free product and properly storing recovered product from surface water. This <u>SOWtask</u> includes all personnel (senior technician), miscellaneous equipment, and supplies. Task is limited to a maximum of two (2) events per month. **Work is not to exceed 2 hours.** 

Maximum cost is \$110.00 \$126.00.

# Task 2.6 Continuous Free Product Removal (with Division approval only)

#### 2.6.a Cost for specifying and purchasing a passive skimmer

This <u>SOWtask</u> will include all necessary personnel time to properly specify and purchase a passive skimmer system to remove free product from a monitoring well. Professional hours are not to exceed two (2) hours.

-Cost of skimmer system is not to exceed \$800/each.

Maximum cost is \$960.00 \$984.00.

# 2.6.b Cost for installation of a passive skimmer or absorbent pad/sock

This <u>SOWtask</u> will include all necessary personnel (senior technician) and equipment to install a passive skimmer system or absorbent pad/sock to remove free product from a monitoring well.\_—This <u>SOWtask</u> includes measurement and recording of <u>ground watergroundwater</u> depths and product thickness in each well. <u>-Work is not to exceed two (2) hours.</u>

Maximum cost is \$110.00 \$126.00.

#### 2.6.c Cost for servicing a passive skimmer

This <u>SOWtask</u> will include emptying free product and properly storing recovered product from a monitoring well.\_—This <u>SOWtask</u> includes all personnel (senior technician), miscellaneous equipment, and supplies. -**Work** not to exceed two (2) hours.\_—Task is limited to a maximum of two (2) events per month.

Maximum cost is \$110.00 \$126.00.

## **Task 2.7 Impacted Drinking Water Management**

#### 2.7.a Cost for temporary response activities

This <u>SOWtask</u> will consist of notifying the groundwater user of impact to their water supply and delivery of bottled water or installation of a temporary purification system.

Maximum cost is \$2,500.00 without an approved cost proposal. With an approved cost proposal, the maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

#### 2.7.b Cost for permanent response activities

This <u>SOWtask</u> will include the <u>cost to implement the Division approved</u> <u>Impacted Drinking Water Supply Permanent Response - Proposal (Task 6.5.c)cost of the bid presented in the Permanent Source of Potable Water (PSPW) proposal, and change order(s) if applicable, approved in writing by the Division.</u>

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

## **Task 2.8 Petroleum Vapor Impact Management**

#### 2.8.a Cost for temporary response activities

This <u>SOWtask</u> will consist of notifying the affected occupants and/or property owners of impacted buildings or utility districts of impacted utilities concerning the vapor hazard and proposed temporary actions.\_–This <u>SOWtask</u> also includes <u>d</u>-implementation of temporary response actions.

Maximum cost is \$2,500.00 without an approved cost proposal. With an approved cost proposal, the maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

# 2.8.b Cost for permanent response activities

This task will include the cost to implement the -Division approved Petroleum Vapor Impact Response - Proposal (Task 6.6.b) and change order(s) if applicable, approved in writing by the Division. This SOW will include the cost of the bid presented in the Petroleum Vapor Permanent Abatement (PVPA) System Proposal, and change order(s) if applicable, approved in writing by the Division.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

### 2.8.c Cost for permit and/or utility service

This SOWtask includes all personnel time necessary to secure permits and/or utility connections with federal, state, and/or local government agency requirements.

Maximum cost is \$160.00 \$184.00.

## **Task 3.1 Project Management**

## 3.1.a Cost for initial project setup and review

This <u>SOWtask</u> will include all personnel time to review existing site data, including incident information, past site history, agency requirements (NOD, NOV, etc.), previous assessments and remediation (closure reports, IRHMR, ISCR, etc.). This <u>SOWtask</u> assumes client will provide <u>consultantCAC</u> with all available information plus all reimbursement documentation. **This task is not repeatable per release.** 

Maximum cost is \$600.00 \$706.00.

#### 3.1.b Cost for site reconnaissance

This SOWtask will include all personnel time to locate and identify potential receptors such as water wells, surface waters, basements, public utilities, and to locate and identify all potentially affected parties, including names and addresses. This SOWtask will also consist of gathering information about the site so that a detailed site map and site vicinity map can be later generated from field observation (i.e. location of discharge and extent, identification of all receptors, monitoring wells, and other site features). This SOWtask includes project manager oversight and staff level persons (or equal) to perform field work, telephone coordination with property owners and local city and state government agencies. This SOWtask includes data review, evaluation and reporting (client, property owners, appropriate Field Office Division's files, etc.). If a previous consultant CAC has already completed this task, then it should not be duplicated unless requested by the Division.

Maximum cost is \$845.00 \$977.00.

#### 3.1.c Cost for offsite access (grant of access)

This SOWtask will include all personnel time to acquire a grant-of-access from adjacent and nearby property owners. Access purposes may include, but are not limited to borings and soil sampling, monitoring and recovery well installation, city or county waterline hookup, easements, etc.

Maximum cost is \$320.00 \$368.00 per agreement.

#### 3.1.d Cost for pre-Corrective Action Plan meeting

This SOWtask will include the meeting held between Division personnel, the CAC and/or the responsible party, as deemed necessary by the Division prior

to submission of a CAP. Topics for discussion shall include but not be limited to measured drawdown and radius of influence during the 24 hour MEME event, extraction rates for soil vapor and groundwater, number of extraction or recovery wells and number with free product, permit requirements (treated water, air, construction, etc.), electrical supply availability and local requirements, and site obstructions (hindrances to CAS delivery and/or placement). This may include any time for an on-site meeting. Maximum cost includes the time required for oversight by the Project Manager and a maximum of two (2) staff level persons (or equal) geologists/engineers/senior environmental specialist. to schedule, plan, and attend the meeting.

Maximum cost is \$1,375.00 \$1,581.00 per meeting.

# **Task 3.2 System Test**

# 3.2.a Cost for system test

The UST system tightness testing is reimbursable for release investigations only. An approved tightness test for a release investigation will follow Rule 0400-18-01-.05(3)(a). All tightness test methods must be third party certified. **System tightness testing for system compliance is not reimbursable**.

Maximum cost is actual invoice cost from tightness tester.



## Task 3.3 Drilling

#### 3.3.a Cost for scheduling drilling event

This SOWtask will include all necessary contracting and scheduling for a driller to perform all phases of drilling (i.e. soil borings, installation of monitoring wells, vertical wells, remedial wells, perform well development, boring abandonment, and various other drilling tasks as needed). This SOWtask shall include the scheduling of field activities associated with the drilling event. This SOWtask shall include scheduling and coordinating locating allof underground utility location servicesies. This SOWtask shall also include all personnel time necessary to acquire all well permits from the appropriate agency.

Maximum allowable cost is \$285.00 \$327.00.

#### 3.3.b. Cost for mobilization/demobilization of drill rig

This <u>SOWtask</u> will include mobilization and demobilization of the drill <u>rig</u>, <u>support vehicles</u>, <u>steam cleaner</u>, <u>grout plant</u>, <u>trailers</u>, <u>and crew rig</u> to and from the site. Mobilization/demobilization is not to exceed <u>250–300</u> miles round trip.

<u>Direct push unit:</u> Maximum cost is limited to \$2.35-\$2.70 per mile not to exceed a total cost of \$587.50 \$810.00. for a direct push technology rig. Auger and air rotary type drilling rig: Maximum cost is limited to \$3.00 \$5.00-per mile-not to exceed a total cost of \$750.00 \$1,500.00 for an auger rig.

Maximum cost is limited to \$4.25 per mile not to exceed a total cost of \$1,062.50 for an air rotary rig.

# 3.3.c Cost for supervision of field work

This SOWtask will include oversight of field activities as well as office support and coordination. This SOWtask includes one (1) field person, either a licensed professional geologist under the Tennessee Geologist Licensure Act of 2007 (T.C.A. §62-36-101 et seq.), or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.) with appropriate geologic experience, and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, equipment and supplies. Included in the SOWtask, the consultantCAC is required to complete all boring logs, well construction records, and collect all necessary soil samples including samples for soil disposal. Supervisory time should not exceed drilling time.

# Maximum allowable cost per day is \$972.50 \$1,049.50.

# 3.3.d Cost for drilling

This SOWtask will include support vehicles, steam cleaner, grout plant, trailers, and crew. All monitoring wells shall be installed by a TN licensed well driller. The CAC must submit the drilling invoice with the reimbursement request. Along with the invoice, the consultantCAC must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultantCAC uses their own driller. All wells are required to be properly developed prior to sampling. This includes surge blocking where needed.

## 3.3.e Cost for well development

This SOWtask will include all necessary personnel (TN licensed geologist, TN licensed engineer, senior environmental specialist, environmental specialist, or senior technician), labor, equipment and supplies to properly develop wells in accordance with the EAG twenty-four (24) hours after installation.

Maximum cost per day is \$886.00 \$1,138.00.

# 3.3.f Cost for disposal of petroleum contaminated soil in drums (includes cost of drums)

This <u>SOWtask</u> will include all necessary personnel, labor, equipment and supplies to properly dispose petroleum contaminated soil in drums at a permitted disposal facility. This cost is for <u>drum</u>, <u>disposal</u>, <u>only and transport</u>.

Maximum cost is \$90.00 \$200.00 per drum.

# **Task 3.4 Sampling**

## 3.4.a Cost for ground watergroundwater sampling

This task includes all personnel time, equipment and sampling supplies to collect static fluid level measurements, calculate purge volumes, sample wells of any depth or diameter, and sampling of purge water for disposal. This task also includes personnel time to coordinate this task and to manage the laboratory services This SOW includes all personnel time to purge and sample wells of any depth or diameter. This SOW includes static water level measurements and purge volume calculations. This SOW includes all ground watergroundwater sampling for primary and secondary Drinking Water Standards as required in the EAG. This SOW includes sampling of purge water for disposal. This SOW includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing). Includes cost of drum.

This is a lump sum task with a maximum cost of Maximum cost is \$273.50 \$298.50 for one (1) well and \$120.00 \$136.00 per well for each additional well sampled.

# 3.4.b Cost for water supply well sampling

This SOWtask includes all personnel and sampling supplies to purge and sample a water supply well (i.e. indoor or outdoor spigot). This SOWtask includes all necessary equipment, personnel and sampling supplies to perform well purging (by letting spigot run for an adequate time) followed by sampling. This SOWtask includes sampling of purge water for disposal. This SOWtask includes the time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

<u>This is a lump sum task with a maximum cost of Maximum cost is \$75.00</u> <u>\$151.00</u> for one (1) well and <u>\$55.00</u> <u>\$63.00</u> for each additional well sampled.

#### 3.4.c Cost for surface water sampling

This <u>SOWtask</u> includes sampling of various types of surface waters (i.e. includes ponds, streams, creeks, etc.) to verify contamination. This <u>SOWtask</u> includes all necessary equipment, personnel and sampling supplies to perform sampling. This <u>SOWtask</u> includes personnel time to coordinate this

task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

This is a lump sum task with a maximum cost of Maximum cost is \$75.00 \$151.00 for one (1) sample point and \$55.00 for each additional sample point.

# 3.4.d Cost for soil sampling (not associated with drilling activities)

This SOWtask includes various types of soil sampling not associated with drilling activities, closure activities, stockpile sampling or over-excavation sampling. (i.e. includes surface sampling, etc.) to verify contamination. This SOWtask includes all necessary equipment, personnel, and sampling supplies to perform sampling. This SOWtask includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

This is a lump sum task with a maximum cost of Maximum cost is \$180.00 \$255.50 for one (1) sample point by hand augering and \$55.00 \$63.00 for each additional sample point.

# 3.4.e Cost for laboratory services

This SOWtask includes laboratory costs associated with all sampling of soil and/or water. ConsultantThe CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. CAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultantCAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

# 3.4.f Cost for disposal of free product and/or ground watergroundwater contaminated with petroleum product (includes cost of drum)

This <u>SOWtask</u> consists of disposal of free product and/or <u>ground</u> <u>watergroundwater</u> contaminated with petroleum product removed from a monitoring well.\_-Ground-water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for <u>drum</u>, disposal, <u>and transport-only</u>.

Maximum cost is \$90.00200.00 per drum.

# 3.4.g Cost for collection of thirty (30) day static ground watergroundwater levels

This <u>SOWtask</u> includes all personnel and equipment to properly collect thirty (30) day static water level measurements in accordance with the current Environmental Assessment Guidelines as required to develop potentiometric maps in the Initial Site Characterization Report.

Maximum cost is \$190.00 \$199.00.



# **Task 3.5 Receptor and Water Use Survey**

## 3.5.a Cost for receptor survey

This <u>SOWtask</u> includes preparation of a receptor survey in accordance with the EAG. This <u>SOWtask</u> includes all <u>fieldworkfield work</u>, telephone contacts and records search. This <u>SOWtask</u> includes the completion of the Water Use Survey Sheets. **This task is not repeatable unless requested/approved by the Division.** 

Maximum cost is \$330.00 \$396.00.

## 3.5.b Cost for water use and Karst survey

This <u>SOWtask</u> includes preparation of a water use and Karst survey in accordance with the EAG.\_—This <u>SOWtask</u> includes all <u>fieldworkfield work</u>, telephone contacts and record searches. This <u>SOWtask</u> includes the completion of the Water Use Survey Sheets. **This task is not repeatable unless requested/approved by the Division.**Maximum cost is <u>\$890.00</u> \$1,040.00.

# Task 3.6 Site Survey

# 3.6.a Cost for site survey by a licensed professional surveyor

This SOWtask will include all personnel time to coordinate and schedule field activities associated with the survey event, and equipment to collect, and record all data required to complete an acceptable monitoring well location map. This SOWtask shall include surveying the elevation of the established and documented point on the top of each well casing correlated with a mean sea level datum.

This is a lump sum task with a maximum cost of Maximum cost not to exceed \$745.00 \$1,007.00 for the initial four (4) wells. Maximum cost is and \$145.00 \$173.00 for each additional well.

# **Task 3.7 Vapor Monitoring**

# 3.7.a Cost for vapor monitoring

This SOWtask includes monitoring of various types of above-ground structures and subsurface structures (i.e. includes buildings, basements, crawl spaces, utility vaults, etc.) for petroleum vapors. -This SOWtask includes all necessary equipment and personnel to coordinate and conduct this task. This SOWtask should be performed in conjunction with any monitoring or sampling task when personnel isare already on-site and not performed as a separate event, unless otherwise directed by the Division.

Maximum cost is \$215.00 \$176.00 per day.

#### 3.0 RELEASE INVESTIGATION PROCESS

## **Task 3.8 Soil Gas Survey**

#### Task 3.8.a Soil Gas Survey Using Direct Push Technology

#### 3.8.a.1 Cost for scheduling soil gas survey event

This SOWtask will include all necessary contracting and scheduling to perform all phases of the soil gas survey (i.e. soil borings and various other drilling tasks as needed). This SOWtask will include the scheduling of field activities associated with the soil gas survey event. This task shall include scheduling and coordinating of underground utility location services. This SOW will include locating all underground utilities.

Maximum allowable cost is \$285.00 \$327.00.

## 3.8.a.2Cost for mobilization/demobilization of direct push technology

This <u>SOWtask</u> will include mobilization and demobilization of the drill <u>rig</u>, <u>support vehicles</u>, <u>steam cleaner</u>, <u>grout plant</u>, <u>trailers</u>, <u>and crew rig</u> to and from the site. Mobilization/demobilization is not to exceed <u>250 300</u> miles round trip.

Maximum cost is limited to \$2.35 \$2.70 per mile not to exceed a total cost of \$587.50 \$810.00.

# 3.8.a.3Cost for supervision of <u>fieldworkfield work</u> using a direct push technology (4 <u>sample points</u> or less <u>samples</u>)

This SOWtask will include oversight of field activities as well as office support and coordination. This SOWtask will include all personnel and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, sample train, assembly and testing of sample train and sample supplies. Included in the SOWtask the CAC is required to complete all field forms and collect all necessary samples. Supervisory time should not exceed drilling time.

Maximum allowable cost per half day is \$1,356.00 \$1,701.00 (5 hours).

# 3.8.a.4Cost for supervision of <u>fieldworkfield work</u> using a direct push technology (5 or more sample <u>point</u>s)

This <u>SOWtask</u> will include oversight of field activities as well as office support and coordination. This <u>SOWtask</u> will include all personnel and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, sample train, assembly and testing of sample train and

sample supplies. Included in the <u>SOWtask</u>, the CAC is required to complete all field forms and collect all necessary samples. Supervisory time should not exceed drilling time.

Maximum allowable cost per full day is \$2,392.00 \$2,985.00 (10 hours).

#### 3.8.a.5 Cost for drilling using direct push technology (4 hours4 points or less)

This SOWtask will include support vehicles, steam cleaner, trailers, and a two (2) person crew. The CAC must submit the drilling invoice with the reimbursement request. Along with the invoice, the CAC must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultantCAC uses their own driller.

Maximum allowable cost per half day is \$1,343.00 \$1,542.00 (4 hours).

# 3.8.a.6Cost for drilling using direct push technology (8 hours 4 sample points or more)

This SOWtask will include support vehicles, steam cleaner, trailers, and a two (2) person crew. The CAC must submit the drilling invoice with the reimbursement request. Along with the invoice, the CAC must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultantCAC uses their own driller.

Maximum allowable cost per full day is \$1,831.00 \$2,117.00 (8 hours).

#### 3.8.a.7 Cost for laboratory services

This SOWtask includes laboratory costs associated with all air or soil gas sampling. The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. ConsultantCAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultantCAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.



#### 3.0 RELEASE INVESTIGATION PROCESS

## **Task 3.8 Soil Gas Survey**

#### Task 3.8.b Soil Gas Survey Using Hammer Drill or Slide Hammer

#### 3.8.b.1Cost for scheduling soil gas survey event

This SOWtask will include all necessary contracting and scheduling to perform all phases of the soil gas survey (i.e. soil borings and various other drilling tasks as needed). This SOWtask will include the scheduling of field activities associated with the soil gas survey event. This SOWtask will include locating all underground utilities.

Maximum allowable cost is \$285.00 \$327.00.

# 3.8.b.2Cost for <u>fieldworkfield work</u> using a hammer drill or slide hammer (<u>5</u>4 hours) (4 sample points or less)

This <u>SOWtask</u> will include oversight of field activities as well as office and field support and coordination. This <u>SOWtask</u> will include all personnel and the necessary equipment to supervise and conduct field activities. Cost includes all personnel time, sample train, assembly and testing of sample train and sample supplies. Included in the <u>SOWtask</u>, the <u>consultantCAC</u> is required to complete all field forms and collect all necessary samples.

Maximum allowable cost per half day is \$1,932.00 \$2,447.00 (4 hours) plus shipping.

# 3.8.b.3 Cost for <u>fieldworkfield work</u> using a hammer drill or slide hammer (8 hours 5 or more sample points)

This <u>SOWtask</u> will include oversight of field activities as well as office and field support and coordination. This <u>SOWtask</u> will include all personnel and the necessary equipment to supervise and conduct field activities. Cost includes all personnel time, sample train, assembly and testing of sample train and sample supplies. Included in the <u>SOWtask</u>, the <u>consultantCAC</u> is required to complete all field forms and collect all necessary samples.

Maximum allowable cost per full day is \$3,226.00 \$4,083.00 (8 hours) plus shipping.

#### 3.8.b.4 Cost for laboratory services

This SOWtask includes laboratory costs associated with all air or soil gas sampling. Consultant The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. CAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant CAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

#### 3.0 RELEASE INVESTIGATION PROCESS

#### **Task 3.9 Advanced Site Characterization**

## **Task 3.9.a Advanced Site Characterization Technologies**

#### 3.9.a.1 Cost for scheduling approved site characterization technologies

This task will include all necessary contracting and scheduling to perform all phases of approved site characterization technologies. This task shall include the scheduling of field activities associated with the approved site characterization technologies. This task includes having the Tennessee 811 System locate all underground utilities. This task shall also include all personnel time necessary to acquire any required permits from the appropriate agency.

## Maximum allowable cost is \$327.00.

# 3.9.a.2Cost for private utility location

This task will include the cost equal to the cost of the approved bid and change orders if applicable, submitted to the Division and approved in writing. Three bids are required, and the lowest bid is to be chosen unless approved by the Division in writing. Only one private utility location is allowed for each release unless approved by the Division in writing.

Maximum cost is equal to the cost of the bid, and change orders if applicable, plus a 15% markup, submitted to the Division and approved in writing.

## 3.9.a.3 Cost for mobilization/demobilization of drill rig

This task only applies if the advanced site characterization technologies sub-contractor is not supplying the drill rig. This task will include mobilization and demobilization of an appropriate drilling rig, support vehicles, steam cleaner, grout plant, trailers, and crew required to complete the approved advanced site characterization technologies to and from the site. Mobilization/demobilization is not to exceed 300 miles round trip.

<u>Direct push unit: maximum cost is limited to \$2.70 per mile not to exceed a total cost of \$810.00.</u>

Auger and air rotary type drilling rig: maximum cost is limited to \$5.00 per mile not to exceed a total cost of \$1,500.00.

## 3.9.a.4Cost for drilling

This task only applies if the advanced site characterization technologies sub-contractor is not supplying the drill rig. This task will include the time and equipment required to advance the advanced site characterization technologies tools and includes support vehicles, trailers, and 2-person crew. The CAC must submit the drilling invoice with the reimbursement request.

The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the CAC uses their own driller.

# 3.9.a.5Cost for mobilization/demobilization of approved advanced site characterization technologies equipment

This task will include mobilization and demobilization of advanced site characterization technologies equipment to and from the site. The cost is equal to the cost of the approved bid and change orders if applicable, submitted to the Division and approved in writing.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing. No markup will be reimbursed.

## 3.9.a.6 Cost to conduct advanced site characterization technologies

This task will include the cost to conduct approved advanced site characterization technologies.

Maximum cost is equal to the cost of the bid, and change orders if applicable, plus a 5% markup, submitted to the Division and approved in writing.

#### 3.9.a.7 Cost for supervision of advanced site characterization technologies

This task will include oversight of field activities as well as office support and coordination. This task includes one (1) field person, either a licensed professional geologist under the Tennessee Geologist Licensure Act of 2007 (T.C.A. §62-36-101 et seq.), or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.) with appropriate geologic experience, and the necessary equipment to supervise and manage drilling activities. Supervisory time should not exceed drilling time.

Maximum allowable cost per day is \$974.50.

## 3.9.a.8 Cost of supervision of drilling/sampling

This task will include oversight of field activities as well as office support and coordination. This task includes one (1) field person, either a licensed professional geologist under the Tennessee Geologist Licensure Act of 2007 (T.C.A. §62-36-101 et seq.), or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.) with appropriate geologic experience, and the necessary equipment to supervise and manage drilling activities. Cost includes all personnel time, equipment and supplies. Included in the task, the CAC is required to complete all boring logs, well construction records, and collect all necessary soil samples including samples for soil disposal. Supervisory time should not exceed drilling time.

# Maximum allowable cost per day is \$1,049.50.

## 3.9.a.9 Cost for well development

This task will include all necessary personnel (TN licensed geologist, TN licensed engineer, senior environmental specialist, environmental specialist, or senior technician), labor, equipment and supplies to properly develop wells in accordance with the EAG twenty-four (24) hours after installation.

## Maximum cost per day is \$1,138.00.

## 3.9.a.10 Cost for groundwater sampling

This task includes all personnel time to collect static water level measurements, calculate purge volumes, sample wells of any depth or diameter, and sampling of purge water for disposal. This task also includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing). Includes cost of drum.

This is a lump sum task with a maximum cost of -\$298.50 for one (1) well and \$136.00 per well for each additional well sampled.

## 3.9.a.11 Cost of soil/groundwater sampling laboratory services

This task includes laboratory costs associated with soil/groundwater sampling. The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup

will not be allowed if the CAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

# 3.9.a.12 Cost for disposal of petroleum contaminated soil/water in drums

This task will include all necessary personnel, labor, equipment and supplies to properly dispose petroleum contaminated soil/water in drums at a permitted disposal facility. This cost is for drum, disposal, and transport.

Maximum cost is \$200.00 per drum.

#### Task 4.1 Risk Reduction

#### 4.1.a Cost for risk reduction implementation

This <u>SOWtask</u> will include the cost of the bid, and change order(s) if applicable, approved in writing by the Division.

This task will include the cost of the bid, plus 5% markup, and change order(s) if applicable, approved in writing by the Division.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

## 4.1.b Cost for disconnection of private water supply well

This SOWtask will include all necessary personnel and labor, equipment and materials to properly disconnect a private water supply well. Required activities include, but are not limited to, termination and disconnection of the power supply and disconnection and capping of any associated piping from the well to the building.

Maximum cost is equal to the cost of the bid, <u>plus 15% markup</u> and change orders if applicable, submitted to the Division and approved in writing.

#### 4.1.c Cost for supervision of private water supply well abandonment

This SOWtask includes all necessary personnel time to properly abandon a private water supply well in accordance with the Water Well Licensing Regulations and Well Construction Standards (Rrule 1200400-445-09-.16). This SOWtask includes field activities and supervision, project scheduling and oversight.

Maximum cost is \$600.00 \$688.00 per event.

#### 4.1.d Cost for private water supply well abandonment

This SOWtask includes the proper abandonment of a private water supply well performed by a licensed well driller in accordance with the Water Well Licensing Regulations and Well Construction Standards (rRule 400-45-09-.161200-4-9-.16). All private water supply wells shall be installed and abandoned by a licensed well driller. The CAC must submit the drilling invoice with the reimbursement request. Along with the invoice, the consultantCAC

must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format.

The cost of well abandonment will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultantCAC uses their own driller.

Maximum cost is not to exceed \$11.00 \$13.00 per foot.



# **Task 4.2 Institutional Controls**

# 4.2.a Cost for institutional control implementation

This **SOW**task will include the cost of the bid, plus 5% markup, and change order(s) if applicable, approved in writing by the Division.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.



# **Task 4.3 Engineering Controls**

# 4.3.a Cost for engineering control implementation

This SOWtask will include the cost of the bid, plus 5% markup, and change order(s) if applicable, approved in writing by the Division.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.



#### **Task 4.4 Corrective Action**

#### **Task 4.4.a Corrective Action System Installation**

#### 4.4.a.1 Cost for public notice advertisement

This <u>SOWtask</u> includes all personnel time and charges associated with placing public notice of impending corrective action in the newspaper, the state register, sending certified letters to property owners, and/or personal contacts.

Personnel time is limited to one (1) hour \$92.00.

Maximum cost is limited to the actual amount of advertisement or postage cost plus personnel time.

#### 4.4.a.2 Cost for permit and/or utility service

This <u>SOWtask</u> includes all personnel time necessary to secure permits and/or utility connections with federal, state, and/or local government agency requirements.

Maximum cost is \$160.00 \$184.00.

## 4.4.a.3 Cost for oversight of corrective action system delivery

This <u>SOWtask</u> includes all personnel time to coordinate, schedule and oversee delivery of the corrective action system. Cost includes crane rental with operator or forklift for off-loading.

Maximum cost is \$1,067.00 \$1,488.00. Note this task includes either a crane or forklift, not both.

#### 4.4.a.4Cost for soil excavation and soil source removal

This SOWtask will include all personnel, equipment and supplies to complete soil excavation and source removal in accordance with an approved Corrective Action Plan. All costs shall be proposed and will be reimbursed in accordance with task 1.1.a.–e.

Maximum cost is equal to the cost of the proposal and any modifications made by the Division, and change orders if applicable, submitted to the Division in the CAP and approved in writing.

## 4.4.a.5 Cost for recovery well trench installation

This <u>SOWtask</u> will include all personnel, equipment and supplies to complete recovery well and contingent piping and trenching in accordance with an approved Corrective Action Plan. This includes any personnel time (not travel time or mileage) required to purchase necessary supplies.

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Maximum cost for recovery well trench installation, including piping and fittings, is \$65.00 \$82.00 - \$78.00 \$94.00/ linear foot depending on the number of lines in the recovery trench.

# 4.4.a.6Cost for recovery wellhead manifold, extraction vault and tubing installation

This <u>SOWtask</u> will include all personnel, equipment and supplies to construct and install recovery well heads and vaults for each recovery well in accordance with an approved Corrective Action Plan.

This is a lump sum task with a maximum cost Maximum cost is of \$1,380.00 \$1,478.00/wellhead

## 4.4.a.7 Cost for corrective action system inlet piping manifold

This <u>SOWtask</u> will include all personnel, equipment and supplies to construct and install the corrective action system inlet piping manifold in accordance with an approved Corrective Action Plan. This includes any personnel time (not travel time or mileage) required to purchase necessary supplies.

This is a lump sum task with a maximum cost Maximum cost for the first one (1) recoveryextraction well inletconnection isof \$330.00 \$421.00. . Maximum cand a maximum cost for ost for each additional recovery well inletextraction well/contingent line connection is of \$117.00 \$127.00.

#### 4.4.a.8 Cost for concrete pad and bollard installation

This SOWtask includes all personnel, equipment and supplies to properly construct and pour a ten (10) foot wide by fourteen (14) foot long by four (4) inch thick concrete pad for the corrective action system to be placed on in accordance with the current Corrective Action Plan Guidelines CAS Figure Packages. It also includes personnel, equipment and supplies to construct and install the bollards for the corrective action system (up to 12 bollards maximum). This should be performed in conjunction with concrete pad installation or any corrective action installation task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

This is a lump sum task with a maximum cost of Maximum cost is \$1,820.00 \$2,216.00 per pad installation.

Maximum cost <u>for bollard installations is \$230.00 each up to is \$2,400.00</u> \$2.760.00 for 12. <u>for bollards installation</u>

## 4.4.a.9 Cost for mobilization/demobilization of heavy equipment

This <u>SOWtask</u> will include mobilization and demobilization of any heavy equipment to and from the site for <u>excavation and</u> corrective action system off<u>-</u>loading from the delivery truck.

Maximum cost for category 1 equipment is limited to \$1.25 per mile \$375.00 (\$1.25/mile). per piece of equipment not to exceed \$312.50.

Maximum cost for category 2 equipment is \$810.00 (\$2.70/mile).

Maximum cost for category 3 equipment is \$1,500.00 (\$5.00/mile) and must obtain prior Division approval.is limited to \$1.25 per mile per piece of equipment not to exceed \$312.50.

## 4.4.a.10 Cost for corrective action system discharge trench installation

This SOWtask will include all personnel, equipment and supplies to complete CAS discharge piping and trenching in accordance with an approved Corrective Action Plan.

Maximum cost for discharge trench installation, including piping and fittings, is \$25.00 \$30.00/linear foot.

# 44.4.a.11 Cost for wet test of system

This SOWtask will include personnel, equipment, and supplies to ensure that 500 gallons of potable water are at the site so that the corrective action system may be properly wet tested after delivery and prior to start-up. These activities include, but are not limited to pre-diagnostic testing, electrical and telephone line connections, hydrating the carbon filters, and CAS troubleshooting. This is a one-time cost unless otherwise approved by the Division and includes completing the manufacturer pre-startup checklist.

Maximum cost is \$1,200.00 \$1,474.00 per wet test.

#### 4.4.a.12 Cost for electrical service installation

This SOWtask will include the cost of the bid by the electric service provider, for a licensed electrician to make final connections, and change order(s) if applicable, approved in writing by the Division.

This task will include the cost of the bid, plus 5% markup, and change order(s) if applicable, approved in writing by the Division.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

## 4.4.a.13 Cost for disposal of CAS site debris

This <u>SOWtask</u> will include the cost for the proper disposal of non-contaminated materials that must be removed from the site during installation of the CAS and associated trenching <u>(4.4.a.5 through 4.4.a.8 and 4.4.a.10)</u>. This includes asphalt, concrete/rebar, scrap trench piping but does not include disposal of soils or gravel. This task should also be used for disposal costs associated with 4.4.d.9.

Maximum cost is equal to the itemized costs in other sections of RGD-002 (i.e.e.g. 1.3.b.2 transportation to a landfill and 1.3.b.3 landfill costs with maximum 5% markupcosts, hauling, etc.) or the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

## 4.0 CORRECTIVE ACTION PROCESS

#### **Task 4.4 Corrective Action**

## **Task 4.4.b Corrective Action System Operation and Maintenance**

## 4.4.b.1 Cost for routine operation and maintenance

This SOWtask will include routine, scheduled site visits. This is limited to one (1) visit per month. If additional visits are required, a request in advance must be made and approved by the case manager Division project manager. Onsite personnel shall perform routine and scheduled repairs during the site visit. Onsite personnel shall inspect and document system performance on Division provided field forms (CASFL) including, but is not limited to, the tabulation oftabulating gauge and meter readings, inspecting for and repair-ofing leaks (including removing any standing water/product/oil), noting excessive equipment heat and noise, and equipment wear. Other routine activities may include but are not necessarily limited to: adjusting the system for summer or winter operation, checking extraction wells, depth to water and/or adjusting stinger well depths to maximize free product/contaminant recovery; checking all wells (extraction and monitoring) not connected to or in use by the CAS that have contained free product in the past and removing any free product; checking down-hole pumps or air assist lines, if applicable; checking/changing filters, hoses, oil; cleaning the stripper and oil/water separator inside utilizing Rydlyme to remove sludge/fouling/mineral build-up; inspecting and cleaning the stripper aeration tubes/lid seal (gasket roll)/packing media and replacing if necessary and cleaning the stripper exterior; cleaning the AWS inside to remove sludge/fouling/mineral build-up and cleaning the exterior; cleaning the exterior of the heat exchanger; checking all transfer pumps for signs of mineral deposits and cleaning if needed; checking and cleaning the conductivity level probe rods in the AWS and sump; checking the oil sight gauge for water or cloudiness, draining if necessary, and throttling the oil to raise the temperature; cleaning the bag filter housings inside and out to remove sludge/fouling/mineral build-up; backwashing GAC vessels to remove sludge/fouling/mineral build-up and cleaning the exterior; repairing/replacing gauges; and applying lubricants as needed. All components and equipment shall be operated, maintained and cleaned in accordance with the manufacturers' O&M manual and Division requirements, which include quarterly O&M requirements, when applicable. The maximum cost includes all personnel and equipment to service and maintain the system equipment. Price does not include major repairs or extensive troubleshooting which may be covered by the manufacturer. Office coordination and scheduling time is included in the daily rate. Routine operation and maintenance shall not exceed one (1) workday (maximum 10-hour workday) without prior approval

from the appropriate field office <u>Division project manager</u>. <u>In the month that Annual O&M is performed, monthly O&M should not be performed.</u>

Maximum cost is \$1,257.50 \$1,175.50 per day. All routine O&M conducted on a state-state-owned system shall be performed by a CAS Specialist. or aA Senior Technician may conduct routine O&M if the system is responsible party owned.

#### 4.4.b.2Cost for non-scheduled maintenance

This SOWtask will include a nonscheduled site visit as a result of a system shutdown or failure. This SOWtask includes all personnel and equipment to perform the tasks troubleshooting,—and repairing of the system and completion ofcompleting the Division provided field forms (CASRL and/or CASDR).—It excludes costs for supplies, components, and equipment replacement. Office coordination and scheduling time is included in the daily price rate, and thereforeO, only the actual time spent onsite for the CAS Specialist time spent onsite is to be reimbursed. This task will only be reimbursed if the field officeDivision project manager is notified no later than one (1) working day after any non-routine field activity after the system shutdown or failure.

-Maximum cost is \$905.00 \$1,043.00 per day not including supplies, components, and equipment replacement. All non-scheduled O&M conducted on a state owned system shall be performed by a CAS Specialist.

O&M conducted on a state owned system shall be performed by a CAS Specialist or a Senior Technician if the system is responsible party owned.

## 4.4.b.3Cost for evaluation of performance meeting

This SOWtask will include the meeting held between Division personnel, the CAC and/or the responsible party, as deemed necessary by the Division to evaluate the performance of the corrective action system. Topics for discussion shall include but not be limited to COC concentration reduction, plume dynamics, system operational performance, system repair history, and recommendations for system and/or CAP modifications to increase system performance. This may include any time for an on-site meeting. Maximum cost includes the time required for oversight by the Project Manager and a maximum of two (2) geologists/engineers to schedule, plan, and attend the meeting.

Maximum cost is \$1,375.00 \$1,581.00 per meeting.

## 4.4.b.4Cost for utilities and payment of bills

This <u>SOWtask</u> includes all personnel time necessary to process and pay bills associated with utility connection and corrective action system usage including electric, natural gas, telephone, sanitary sewer (POTW), and water. <u>This task shall be billed in conjunction with 4.4.b.5.</u>

Maximum cost is \$60.00 \$80.00 per month.

## 4.4.b.5Cost for charges for utility service

This <u>SOWtask</u> includes all costs for utility service necessary to operate an approved corrective action system including electric, natural gas, telephone, sanitary sewer (POTW), and water usage. <u>This task shall be billed in conjunction with 4.4.b.4.</u>

Maximum cost is limited to the actual amount of the utility bill.

#### 4.4.b.6Cost for additional technician during operation and/or maintenance

This SOWtask will include all personnel time necessary for an additional technician to assist with operation and/or maintenance as described in tasks 4.4.b.1 and 4.4.b.2. This task must be requested in advance and approved by the case manager Division project manager. Operation and/or maintenance shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate field office Division project manager. This is limited to one (1) visit per month. If additional visits are required, then they must be requested in advance and approved by the case manager Division project manager.

Maximum cost is \$450.00 \$520.00 per day.

#### 4.4.b.7Cost for review of telemetry report

This <u>SOWtask</u> includes all personnel time necessary to review and interpret all telemetry alarms, data and reports associated with the corrective action system. <u>This includes remotely starting the CAS, when necessary.</u>

Maximum cost is \$190.00 \$218.00 per month.

#### 4.4.b.8Cost for annual routine operation and maintenance

This SOWtask will include a routine scheduled site visit for annual operation and maintenance as outlined in the manufacturers' operating manual. This

task is limited to one (1) workday per twelve (12) month period and shall not exceed one (1) workday (maximum 10-hour workday) without prior approval from the appropriate field office Division project manager. The maximum cost includes all personnel and equipment to service and maintain the system equipment and completion of all tasks and paperwork required by the Division's CASFL. Price does not include major repairs or extensive troubleshooting which may be covered by the manufacturer. Office coordination and scheduling time is included in the daily rate. All annual routine O&M conducted on a state owned system shall be performed by a CAS Specialist and technician. A separate routine O&M event during the same month will not be reimbursed.

Maximum cost is \$1,522.50 \$1,598.50 per day plus the cost of the annual O&M kit from the system manufacturer (\$2,440.00 at cost plus a includes 15% mark-upmarkup) plus actual cost of and shipping).

#### **CORRECTIVE ACTION PROCESS**

#### **Task 4.4 Corrective Action**

## **Task 4.4.c Corrective Action Sampling**

#### 4.4.c.1 Cost for ground watergroundwater sampling

This task includes all personnel time to collect static water level measurements, calculate purge volumes, sample wells of any depth or diameter, and sampling of purge water for disposal. This task also includes personnel time to This SOW will include all personnel time and sampling supplies to purge and sample wells of any depth or diameter. This SOW includes static water level measurements, purge volume calculations, sampling of purge water for disposal, personnel time to coordinate this task and to manage the laboratory services (i.e. chain of custody, sample preparation, sample QA/QC, and invoice managing). The schedule for ground watergroundwater monitoring shall be performed in accordance with the schedule in the approved CAP. Wells to be sampled shall be in accordance with the approved CAP. Includes cost of drum.

This is a lump sum Task with a Mmaximum cost is of \$273.50 \$298.50 for one (1) well and \$120.00 \$136.00 per well for each additional well sampled.

# 4.4.c.2 Cost for water supply well sampling

This SOWtask includes all personnel and sampling supplies to purge and sample a water supply well\_and sample purge water for disposal. The water supply well is to be purged by (i.e. indoor or outdoor spigot). This SOW includes all necessary equipment, personnel and sampling supplies to perform well purging (by letting running water through a spigot run for an adequate time) prior to followed by sampling.—This SOWtask also includes sampling of purge water for disposal. This SOW includes the personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

<u>This is a lump sum Task with Mm</u>aximum cost is of \$88.00 for one (1) well and \$55.00 \$63.00 for each additional well sampled.

#### 4.4.c.3 Cost for surface water sampling

This <u>SOWtask</u> includes sampling of various types of surface waters (i.e. includes ponds, streams, creeks, etc.) to verify contamination. This <u>SOWtask</u> includes all necessary equipment, personnel and sampling supplies to

perform sampling. This <u>SOWtask</u> <u>also</u> includes <u>personnel personnel</u> time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

This is a lump sum Task with maximum cost of Maximum cost is \$75.00 \$88.00 for one (1) sample point and \$55.00 \$63.00 for each additional sample point.

## 4.4.c.4 Cost for soil sampling (not associated with drilling activities)

This <u>SOWtask</u> includes various types of soil sampling not associated with drilling activities, closure activities, stockpile sampling or over-excavation sampling.—(i.e. includes surface sampling, etc.) to verify contamination. This <u>SOWtask</u> includes all necessary equipment, personnel, and sampling supplies to perform sampling. This <u>SOWtask</u> <u>also</u> includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

This is a lump sum Task with maximum cost of Maximum cost is \$180.00 \$255.50 for one (1) sample point by hand augering and \$55.00 \$63.00 for each additional sample point.

## 4.4.c.5 Cost for laboratory services

This SOWtask will include any soil laboratory analysis performed for corrective action monitoring. Consultant The CAC must submit the laboratory invoice and completed chain of custody form with the reimbursement request. CAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the consultant CAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum costs shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

## 4.4.c.6 Cost for monitored natural attenuation

This <u>SOWtask</u> includes the collection of geochemical and/or biological samples and evaluation of parameters that support intrinsic remediation such as dissolved oxygen, nitrate, sulfate, total dissolved iron, methane, and total organic carbon. Sampling and laboratory analysis for the appropriate COCs shall also be a part of this task. This <u>SOWtask also</u> includes personnel time to

coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing.

Maximum cost is \$235.00 for one (1) well (all parameters) or \$120.00 per well if more than one (1) well is sampled.

## 4.4.c.7 Cost for land and receptor monitoring

This SOWtask shall consist of monitoring for changes in land, surface, and/or ground watergroundwater use surrounding the site. Compare receptors used during preparation of the approved Exposure Assessment to any changes observed on site or surrounding the site. This SOWtask should be performed in conjunction with any monitoring or sampling task when personnel is already on site and not performed as a separate event, unless otherwise directed by the Division.

Maximum cost is \$160.00 \$184.00.

## 4.4.c.8 Cost for Publicly Owned Treatment Works (POTW) sampling

This SOWtask will include all personnel, labor time and sampling supplies required to collect corrective action system water samples for laboratory analysis to meet/establish POTW discharge permit requirements. This SOWtask includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). The frequency and sampling requirements for discharge permits shall be performed according to the approved federal, state, and/or local government agency requirements. Maximum number is one (1) sample per influent and one (1) sample per discharge. Influent samples should be collected for the COCs approved in the SSSR. Effluent samples should be collected for the COCs approved in the permit. This SOWtask should be performed in conjunction with any monitoring or sampling task when personnel is are already on site and not performed as a separate event, unless otherwise directed by the Division.

This is a lump sum Task with maximum cost of Maximum cost is \$75.00 \$88.00 for the first sample and \$55.00 for each additional sample collected.

4.4.c.9 Cost for National Pollutant Discharge Elimination System (NPDES) sampling

This SOWtask includes all personnel time and sampling supplies required, labor and supply costs to collect corrective action system water samples for laboratory analysis to meet/establish NPDES discharge permit requirements. This SOWtask includes personnel time to coordinate this task and to manage laboratory services (i.e. Chain of Custody, sample preparation, sample QA/QC, and invoice managing). The frequency and sampling requirements for discharge permits shall be performed according to the approved federal, state, and/or local government agency requirements. Maximum number is one (1) sample per influent and one (1) sample per discharge. Influent samples should be collected for the COCs approved in the SSSR. Effluent samples should be collected for the COCs approved in the permit. This SOWtask should be performed in conjunction with any monitoring or sampling task when personnel isare already on site and not performed as a separate event, unless otherwise directed by the Division. This task shall also be used for automatic sampling for NPDES permits requirements (other than Task 4.4.c.10 for initial set-up and final retrieval).

This is a lump sum Task with maximum cost of Maximum cost is \$75.00 \$88.00 for the first sample and \$55.00 for each additional sample collected.

## 4.4.c.10 Cost for effluent toxicity sampling (NPDES)

This SOWtask includes all personnel time and sampling supplies required, labor and supply costs to conduct whole effluent toxicity sampling over a five (5) day period. Personnel are allotted a maximum of one (1) hour onsite time per day on days one (1), three (3) and five (5) to collect grab samples from the CAS effluent.

Also includes personnel time to schedule & coordinate task.

This is a lump sum Task with maximum cost of Maximum cost is \$305.00 \$356.00 per event.

#### 4.4.c.11 Cost for corrective action system air monitoring

This <u>SOWtask</u> includes all personnel time, <u>labor</u> and equipment <u>required</u> to monitor effluent air concentrations on site for compliance with required state or local issued permits. The frequency requirements for discharge monitoring shall be performed according to the approved federal, state, and/or local government agency requirements. This <u>SOWtask</u> should be performed in conjunction with any monitoring task when personnel <u>isare</u> already on site and not performed as a separate event, unless otherwise directed by the Division.

Maximum cost is \$205.00 \$123.00.

# 4.4.c.12 Cost for disposal of drums filled with free product or ground watergroundwater contaminated with petroleum product

This SOWtask will include all necessary personnel and labortime, equipment and supplies required to properly dispose of drums filled with free product and/or ground watergroundwater contaminated with petroleum product removed from a monitoring well. Ground—water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for drum, disposal, and transportation only atto a permitted disposal facility. Maximum cost is \$90.00 \$200.00 per drum.

## 4.4.c.13 Cost for disposal of drums filled with petroleum contaminated soil

This <u>SOWtask</u> will include all necessary personnel <u>and labor\_time</u>, equipment and supplies <u>required\_to</u> properly dispose of drums filled with petroleum contaminated soil. Soil contamination must be documented by an approved state of Tennessee laboratory method. This cost is for <u>drum,</u> disposal, <u>and transportation to\_only at\_apermitted</u> disposal facility.

Maximum cost is \$90.00 \$200.00 per drum.

# 4.4.c.14 Cost for vacuum monitoring of CAS

This SOWtask includes all personnel time and equipment requiredlabor to obtain and document vacuum measurements collected during each monitoring event as required by the CASFL. All vacuum measurements shall be documented in the CASFL and submitted with the applicable report. This SOWtask should be performed in conjunction with any monitoring task when personnel isare already on site and not performed as a separate event, unless otherwise directed by the Division.

Maximum cost is \$120.00 \$136.00.

#### 4.0 CORRECTIVE ACTION PROCESS

#### **Task 4.4 Corrective Action**

## **Task 4.4.d Corrective Action System Closure**

#### 4.4.d.1 Cost for deactivation of corrective action system

This <u>SOWtask</u> includes all personnel <u>time</u> and equipment <u>required</u> to properly deactivate corrective action system in accordance with the current Division Corrective Action System Deactivation Checklist and local, state and federal laws and guidelines. Office coordination and scheduling time is included in the daily rate.

Maximum cost is \$2,651.00 \$3,064.00.

# 4.4.d.2Cost for disposal of drums filled with <u>free product and/or petroleum</u> contaminated wastegroundwater.

This <u>SOWtask</u> will include all necessary personnel <u>and labortime</u>, equipment and supplies <u>required</u> to properly dispose of drums filled with free product and/or <u>ground watergroundwater</u> contaminated with petroleum product removed from a monitoring well. Ground-water contamination must be documented by an approved state of Tennessee laboratory method. This cost is for <u>drum</u>, <u>disposal</u>, <u>and transportation to only at</u> a permitted disposal facility.

Maximum cost is \$90.00 \$200.00 per drum.

#### 4.4.d.3Cost for permit and/or utility connection termination

This <u>SOWtask</u> includes all personnel time necessary to terminate permits and/or utility connections with federal, state, and/or local government agency requirements.

Maximum cost is \$160.00 \$184.00 for oversight.

Maximum cost for subcontracted electrician (if required by utility district) not to exceed the cost of the bid submitted to the Division and approved in writingng., plus 5% markup, and change order(s) if applicable.

# 4.4.d.4Cost for preparation of the corrective action system for removal from the site for refurbishment

This SOWtask includes all personnel time and equipment required to properly sever tie downs, piping and electrical wiring from the corrective action system, and to remove unusable power poles, exposed piping, fencing and enclosures in accordance with the current local, state and federal laws and guidelines. This cost also includes oversight during the loading of the corrective action system and associated equipment for transport to a Division approved system vendor for refurbishing.

Maximum cost not to exceed \$330.00 \$378.00.

## 4.4.d.5 Cost for decommissioning a corrective action system

This SOWtask includes all personnel time and equipment required to properly decommission the of a corrective action system including dismantling any associated ancillary equipment, removing unusable power poles, exposed piping, fencing and enclosures in accordance with the current Division Corrective Action System Decommission Checklist and local, state and federal laws and guidelines. This includes properly preparing the system for removal from the site. Office coordination and scheduling time is included in the daily rate. This SOWtask does not include hauling or disposal of non-state owned equipment and debris to a disposal or recycling facility. All state owned equipment pick-up will be scheduled by the Division.

Maximum cost is not to exceed \$2,662.00 \$3,313.00. This task must be approved in writing from the Division project manager.

#### 4.4.d.6Cost for mobilization and demobilization of heavy equipment

This <u>SOWtask</u> will include mobilization and demobilization of the backhoe and/or skid-steer loader and concrete breaker to and from the site for decommissioning or following removal of corrective action system that is being refurbished.

\_Maximum cost is limited to \$1.25 per mile per piece of equipment not to exceed \$312.50 \$375.00.

# 4.4.d.7Cost for oversight of the corrective action system pick-up for refurbishment by the state contractor

This <u>SOWtask</u> includes all personnel for oversight by the state contractor of pick-up and loading of the corrective action system for transport for refurbishment. This cost also includes inspection to determine that all tie downs have been properly severed and piping and wiring have been properly disconnected and capped from the corrective action system. **This task will only be reimbursed if requested/approved by the Division.** 

Maximum cost not to exceed \$330.00 \$378.00.

# 4.4.d.8Cost for reactivation of the corrective action system and oversight of performance (with Division approval)

This SOWtask includes all personnel time and equipment required to properly reactivate the corrective action system after Division approval and in accordance with the current Division Corrective Action System Reactivation Checklist. This task includes maximum on-site allowable personnel time up to 10 hours to make any necessary system adjustments. Office coordination and scheduling time is included in this task.

Maximum cost is \$1,671.00 \$1,734.00.

# 4.4.d.9 Cost for removal of the concrete pad for a state owned corrective action system sent for refurbishment (if required by property owner)

This task is to be conducted at the request of the property owner (written documentation required) and in conjunction with Tasks 4.4.d.7 or 5.2.c (travel time, mileage, lodging and per diem costs will not be reimbursed for this task). This SOWtask includes all personnel time and equipment required to break up and remove the concrete pad after the corrective action system has been removed from the site for refurbishment. Office coordination and scheduling time is included. This SOWtask includes hauling debris to a disposal or recycling facility. This cost does not include the disposal costs. Disposal costs should be requested in task 4.4.a.13.

Maximum cost not to exceed \$1,155.00 \$1,448.00.

NOTE: The Division will not reimburse for the hauling and/or disposal of a non-state owned CAS.

#### 4.0 CORRECTIVE ACTION PROCESS

#### **Task 4.4 Corrective Action**

## Task 4.4.e Corrective Action Material Injection/Application

#### 4.4.e.1 Cost for scheduling corrective action material injection/application

This task will include all necessary contracting and scheduling a corrective action material injection/application event. This task shall include the scheduling of field activities associated with the remedial design characterization. This task includes having the TN 811 System locate all underground utilities. This task shall also include all personnel time necessary to acquire any required permits from the appropriate agency.

#### Maximum allowable cost is \$327.00.

## 4.4.e.2 Cost for private utility location

This task will include the cost equal to the cost of the approved bid and change orders if applicable, submitted to the Division and approved in writing. Three bids are required, and the lowest bid is to be chosen unless approved by the Division in writing. Only one private utility location is allowed for each release unless approved by the Division in writing.

Maximum cost is equal to the cost of the bid, and change orders if applicable, plus a 15% markup, submitted to the Division and approved in writing.

#### 4.4.e.3 Cost for mobilization/demobilization of drill rig

This task only applies if the corrective action materials injection/application sub-contractor is not supplying the drill rig. This task will include mobilization and demobilization of a direct push technology rig, support vehicles, steam cleaner, trailers, and crew to and from the site. Mobilization/demobilization is not to exceed 300 miles round trip.

Maximum cost is limited to \$2.70 per mile not to exceed a total cost of \$810.00 for a direct push technology rig.

#### 4.4.e.4Cost for drilling

This task only applies if the corrective action materials injection/application sub-contractor is not supplying the drill rig. This task will include the time and equipment required to advance the alternative technology tools and includes support vehicles, trailers, and 2-person crew.

The CAC must submit the drilling invoice with the reimbursement request. The cost of drilling will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the CAC uses their own driller.

# 4.4.e.5 Cost for mobilization/demobilization of corrective action materials injection/application equipment.

This task will include mobilization and demobilization of corrective action materials injection/application equipment to and from the site. The cost is equal to the cost of the approved bid and change orders if applicable, submitted to the Division and approved in writing.

Maximum cost is equal to the cost of the bid, and change orders if applicable, submitted to the Division and approved in writing. No markup will be reimbursed.

# 4.4.e.6 Cost to conduct corrective action materials injection/application

This task will include the cost to conduct corrective action materials injection/application. Maximum cost is equal to the cost of the bid, and change orders if applicable, plus a 5% markup, submitted to the Division and approved in writing.

## 4.4.e.7 Cost for supervision of corrective action materials injection/application

This task will include oversight of field activities as well as office support and coordination. This task includes one (1) field person, either a licensed professional geologist under the Tennessee Geologist Licensure Act of 2007 (T.C.A. §62-36-101 et seq.), or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.) with appropriate geologic experience, and the necessary equipment to supervise and manage drilling activities. Supervisory time should not exceed drilling time.

#### Maximum allowable cost per day is \$974.50.

## 4.4.e.8 Cost for groundwater sampling

This task includes all personnel time to collect static water level measurements, calculate purge volumes, sample wells of any depth or diameter, and sampling of purge water for disposal. This task also includes personnel time to coordinate this task and to manage the laboratory services (i.e. Chain of custody, sample preparation, sample QA/QC, and invoice managing).

This is a lump sum task with a maximum cost of \$298.50 for one (1) well and \$136.00 per well for each additional well sampled.

## **4.4.e.9 Cost of laboratory services**

This task includes laboratory costs associated with groundwater sampling. CAC must attach the laboratory invoice to the reimbursement form. The cost of laboratory analyses will be reimbursed at cost plus 15% not to exceed the rates listed. A markup will not be allowed if the CAC uses their own lab. Transportation costs to the laboratory should be included in this task.

Maximum cost shall not exceed the reasonable reimbursable rates as determined by the applicable laboratory method established in Reference 1.

The cost of shipping samples to the supplier/manufacturer is reimbursable.

# 4.4.e.10 Cost for disposal of petroleum contaminated soil and/or water in drums

This task will include all necessary personnel, labor, equipment and supplies to properly dispose petroleum contaminated soil and/or water in drums at a permitted disposal facility. This cost is for drum, disposal, and transportation.

Maximum cost is \$200.00 per drum.

#### 5.0 FINAL SITE CLOSURE PROCESS

#### **Task 5.1 Well Abandonment**

#### 5.1.a Cost for supervision of well abandonment

This <u>SOWtask</u> includes all necessary personnel time to properly abandon wells in accordance with the current EAG, including preparing the Division's monitoring well abandonment checklist for the drillers. This <u>SOWtask</u> includes field activities and supervision, project scheduling and oversight.

Maximum cost is \$380.00 \$436.00 per event.

#### 5.1.b Cost for well abandonment

This SOWtask includes the proper abandonment in accordance with the current EAG and performed by a licensed well driller, including completion of the Division's monitoring well abandonment checklist and taking pictures of final well abandonment. All monitoring wells shall be abandoned by a TN licensed well driller. The CAC must submit the drilling invoice with the reimbursement request. Along with the invoice, the consultantCAC must submit the appropriate reimbursement forms. In order to simplify and speed reimbursement, it is recommended that drilling companies itemize their invoices to reflect the reasonable rate document form format. The cost of well abandonment will be reimbursed at cost plus 15% markup not to exceed the reasonable rate schedule. A markup will not be allowed if the consultantCAC uses their own driller.

Maximum cost is not to exceed \$11.00 \$13.00 per foot.

-Maximum cost for manhole covers and concrete pad removal is \$125.00 \$150.00 per well.

Maximum cost for recovery well vault removal is \$300.00 \$345.00 per vault.

#### 5.1.c Cost for mobilization/demobilization of support truck

This SOWtask will include mobilization and demobilization of a support truck (equipped to properly abandon monitoring wells) to and from the site. Mobilization/demobilization is not to exceed 250-300 miles round trip.

Maximum cost is limited to \$0.75 per mile not to exceed a total cost of \$187.50 \$225.00.

**NOTE:** If a drill rig is thought to be required to properly abandon the monitoring wells, then **prior written approval** must be obtained from the Division. Otherwise, the cost will not be considered to be reasonable and will not be reimbursed.



#### 5.0 FINAL SITE CLOSURE PROCESS

#### **Task 5.2 Site Restoration**

#### 5.2.a Cost for scheduling for site restoration activities

This <u>SOWtask</u> will include all necessary contracting and scheduling for site restoration activities. Work is not to exceed two (2) hours. Maximum cost is \$95109.00 per hour.

Maximum cost is \$190.00 \$218.00 per event.

## 5.2.b Cost for supervision of site restoration

This SOWtask will include oversight of field activities as well as office support and coordination. Work not to exceed two (2) hours. Maximum cost is \$8092.00 per hour.

Maximum cost is \$160.00 \$184.00 per event.

#### 5.2.c Site restoration

This <u>SOWtask</u> will include all personnel and labor, equipment and supplies to properly restore the site to a condition comparable to the original condition utilizing seed, mulch, and straw by hand. This <u>SOWtask</u> does not include tank(s), line(s), asphalt and/or concrete replacement.

Maximum cost is \$395.00 \$260.00.

# 6.0 SUBMITTED DOCUMENTS MAXIMUM COST TABLE

The following application, proposal, report, and submittal costs are limited to these maximum reimbursable amounts. These are lump sum costs.

Task Code	Submitted Documents (Applications/Proposals/Reports/Submittals)		Maximum Cost
6.1	UST Closure		
	6.1.a	TRBCA Closure Report	\$ <del>605.00</del>
		•	<u>575.00</u>
	6.1.b	Soil Stockpile Sampling Report (TGD-005)	\$345.00
			<u>385.00</u>
	6.1.c	Over-excavation Report	\$930.00
			<u>1,285.00</u>
	6.1.d	Application to Treat Petroleum Contaminated	\$ <del>185.00</del>
		Soil (TGD-009)	<u>220.00</u>
	6.1.e	Soil Treatment and Disposal Report	\$ <del>335.00</del>
			<u>395.00</u>
6.2	Hazaı	rd Notification Report	\$80.00
			<u>95.00</u>
6.3	Site C	heck Report (TGD-012)	\$ <del>2,690.00</del>
			<u>1,005.00</u>
6.4	Initia	l Response and Hazard Management Report	\$ <del>1,715.00</del>
	(IRHMR)		<u>2,540.00</u>
l `	6.4.a	Hazard Management Report	\$ <del>370.00</del>
			430.00
	6.4.b	Health and Safety Plan (if not included with	\$ <del>320.00</del>
		IRHMR)	<u>375.00</u>
6.5	Impa	cted Drinking Water Management (TGD-019)	
	6.5.a	Impacted Drinking Water - Hazard Management	\$ <del>415.00</del>
		Report (TGD-019)	<u>485.00</u>
	6.5.b	Impacted Drinking Water Supply Temporary	\$ <del>365.00</del>
		Response – Proposal (if costs anticipated to	425.00
		exceed \$2500.00)	
	6.5.c	Impacted Drinking Water Supply Permanent	\$ <del>735.00</del>
		Response – Proposal	<u>860.00</u>
6.6	Petroleum Vapor Impact Management (TGD-020)		
	6.6.a	Petroleum Vapor Impact - Hazard Management	\$ <del>415.00</del>
		Report (TGD-020)	<u>485.00</u>
	6.6.b	Petroleum Vapor Impact Temporary Response –	\$ <del>365.00</del>
		Proposal (if costs anticipated to exceed	<u>425.00</u>
		\$2 <u>.</u> 500.00)	
	6.6.c	Petroleum Vapor Impact Permanent Response –	\$ <del>735.00</del>
		Proposal	<u>860.00</u>

6.7	Mobil (TGD-	e Enhanced Multi-phase Extraction (MEME) 016)							
	6.7.a	5.7.a Application to Perform MEME							
	6.7.b	8-hour MEME Report	\$ <del>370.00</del>						
			<u>430.00</u>						
	6.7.c	24-hour MEME Report	\$ <del>490.00</del>						
			570.00						

Task Code	Submi (Applio	Maximum Cost							
6.8		roduct Removal							
	6.8.a	Free Product - Hazard Management Report (TGD-	\$495.00						
		004)	<u>585.00</u>						
	6.8.b	Free Product Investigation Proposal	\$ <del>760.00</del>						
			<u>890.00</u>						
	6.8.c	Free Product Investigation Report	\$ <del>1,715.00</del>						
			<u>2,540.00</u>						
	6.8.d	Free Product Removal Plan	\$ <del>5,285.00</del>						
			<u>6,195.00</u>						
6.9	Initial	Site Characterization Report (ISCR) - (Exposure	\$4,905.00						
	Assess	ment and Risk Analysis Report are integrated into	<u>5,075.00</u>						
	Report	requirements – no additional cost allowed)							
	6.9.a	Additional Monitoring Well Installation Proposal	\$ <del>160.00</del>						
			<u>185.00</u>						
	6.9.b	5.9.b Additional Monitoring Well Installation Report							
			430.00						
6.10	Exposi	re Assessment Report (TGD-017)	\$ <del>1,215.00</del>						
			<u>1,410.00</u>						
	6.10.a	Additional Remediation and/or Risk	\$ <del>80.00</del>						
		Management Response Submittal	<u>95.00</u>						
	6.10.b	Additional Remediation and/or Risk	\$ <del>735.00</del>						
		Management Evaluation – with Division	<u>855.00</u>						
		Management Evaluation with Division	833.00						
		approval	833.00						
	6.10.c		\$305.00						
	6.10.c	approval							
6.11		approval	\$ <del>305.00</del>						
6.11		approval Risk Analysis Report only	\$ <del>305.00</del>						
6.11	Soil Ga	approval Risk Analysis Report only s Survey (TGD-018)	\$305.00 170.00						
6.11	Soil Ga	approval Risk Analysis Report only s Survey (TGD-018)	\$305.00 170.00 \$370.00						
6.11	<b>Soil Ga</b> 6.11.a	approval Risk Analysis Report only  s Survey (TGD-018) Soil Gas Survey Application	\$305.00 170.00 \$370.00 425.00						
6.11	<b>Soil Ga</b> 6.11.a 6.11.b	approval Risk Analysis Report only  s Survey (TGD-018) Soil Gas Survey Application	\$305.00 170.00 \$370.00 425.00 \$630.00						
	<b>Soil Ga</b> 6.11.a 6.11.b	approval Risk Analysis Report only  S Survey (TGD-018) Soil Gas Survey Application Soil Gas Survey Report	\$305.00 170.00 \$370.00 425.00 \$630.00						
	<b>Soil Ga</b> 6.11.a 6.11.b <b>Source</b>	approval Risk Analysis Report only  S Survey (TGD-018) Soil Gas Survey Application Soil Gas Survey Report Removal (Over-excavation)	\$305.00 170.00 \$370.00 425.00 \$630.00 730.00						

			<u>1,285.00</u>					
6.13	Risk Re	eduction						
	6.13.a	Risk Reduction Proposal	\$ <del>240.00</del>					
			<u>280.00</u>					
	6.13.b	Risk Reduction Report	\$ <del>630.00</del>					
			<u>730.00</u>					
6.14	Institu	tional Controls						
	6.14.a	Institutional Control Proposal	\$ <del>240.00</del>					
			280.00					
	6.14.b	Institutional Control Report	\$ <del>95.00</del>					
			<u>110.00</u>					
6.15	Engine	ering Controls						
	6.15.a	Engineering Control Proposal	\$ <del>240.00</del>					
			<u>280.00</u>					
	6.15.b	Engineering Control Report	\$ <del>225.00</del>					
			<u>1,110.00</u>					
6.17	Correct	tive Action Plan (CAP)						
	6.17.a	CAP - Soil Contamination Only	\$3,930.00					
			<u>4,210.00</u>					
	6.17.b	CAP with Groundwater Contamination	\$ <del>5,285.00</del>					
			6,195.00					

Task		ubmitted Documents Applications/Proposals/Reports/Submittals)										
Code		Cost										
6.18		pring Reports (TGD-007)	¢1 105 00									
	6.18.a	Risk Monitoring Report (RMR)	\$ <del>1,105.00</del>									
	C 10 h	Clasura Manitaring Danart (CMD)	<u>1,285.00</u>									
	6.18.b	Closure Monitoring Report (CMR)	\$ <del>1,105.00</del>									
	C 10 =	Compating Asting Paraling Magitaging Parant	<u>1,285.00</u>									
	6.18.g	Corrective Action Baseline Monitoring Report (CABMR)	\$ <del>1,720.00</del> <u>1,995.00</u>									
	6.18.h	Corrective Action Monitoring Report with as-	\$ <del>2,200.00</del>									
		built diagrams (CAMR-ab)	2,660.00									
	6.18.i	Corrective Action Monitoring Report (CAMR)	\$ <del>1,960.00</del>									
			<u>2,270.00</u>									
	6.18.j	Corrective Action Closure Monitoring Report	\$ <del>1,220.00</del>									
		(CACMR)	<u>1,470.00</u>									
6.19	Permit Report											
	6.19.a	NPDES Permit Application	\$445.00									
			<u>525.00</u>									
	6.19.b	Discharge Monitoring Report (DMR)	\$ <del>160.00</del>									
			<u>185.00</u>									
	6.19.c	POTW Application	\$445.00									
			<u>525.00</u>									
	6.19.d	POTW Report	\$ <del>160.00</del>									
			<u>185.00</u>									
	6.19.f	Air Exceedance Report	\$ <del>160.00</del>									
			<u>185.00</u>									
	6.19.g	Annual Air Emissions Report	\$ <del>320.00</del>									
			380.00									
	6.19.h	Monitoring Well Maintenance Fee	\$ <del>110.00</del>									
			<u>135.00</u>									
	6.19.i	Class V Underground Injection Well Application	\$445.00									
		(TGD-003)	<u>555.00</u>									
	6.19.j	Monitoring Well Permit – no markup	\$ <del>150.00</del>									
			<u>180.00</u>									
	6.19.k	Right-of-way Bond – no markup	actual cost									
	<u>6.19.x</u>	Other Required Permits/Renewals – no markup	actual cost									
6.20		aneous ation/Proposals/Reports/Submittals										
	6.20.a	Field Work Notification	\$30.00									
	0.20.0	Tield Work Notification	40.00									
	6.20.b	Roring Log Installation submittal	\$80.00									
	0.20.0	Boring Log Installation submittal										
	6.20.c	Public Notice of Corrective Action	<u>95.00</u> \$ <del>80.00</del>									
	0.20.0	Fubile Notice of Corrective Action										
			<u>95.00</u>									

	6.20.d	Water Use and Receptor Survey Report (other	\$910.00					
		than IRHMR/ISCR)						
	6.20.z	actual cost						
		cost as approved by Division project manager in	as					
		writing)	approved					
			<del>by case</del>					
			<del>manager in</del>					
			writing					
6.21	Correct	\$ <del>80.00</del>						
	Decom	<u>95.00</u>						
6.22	Monito	\$80.00						
			<u>95.00</u>					
<u>6.23</u>	<u>Monito</u>	ring Well Abandonment Report (>6 wells)	<u>\$185.00</u>					
<u>6.24</u>	Advanc	ed Site Characterization						
	<u>6.24.a</u>	Advanced Site Characterization Proposal	<u>\$890.00</u>					
	<u>6.24.b</u>	Advanced Site Characterization Report from the	<u>\$1,225.00</u>					
		Sub-contractor (includes a CAC site map, cover						
		letter, and summary)						
	<u>6.24.c</u>	Confirmatory Soil Sampling Report (includes	<u>\$430.00</u>					
		tables, maps and boring logs)						

				EPA	Meth	nod 8	260B	3						EPA	Met	hod	8270	C SIM	l <sup>2</sup> or	EPA I	Meth	od 83	310 <sup>2</sup>				EP	EPA Method			.7 <sup>2</sup>	
Matrix	Product(s)	Benzene	Toluene	Ethylbenzene	Total Xylenes	MtBE	Naphthalene	EDC	EDB	EDB (EPA Method 8011)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Cadmium	Total Chromium	Total Lead	Silver	Zinc	EPH¹ (TN EPH Method)
	Gasoline	X	Х	X	X	X	Х																									
	Diesel, Kerosene, Jet Fuel	X	Χ	X	X	X	Χ																									Χ
Soil	Waste Oil						Х																									Х
	Aviation Fuel	X	Х	Х	Х	Х	Х	Х	Х																							Х
	Unknown	X	Χ	X	Х	Χ	Χ	Χ	X																							Χ
	Gasoline	X	Χ	Х	Х	X	Χ																									
Groundwater and	Diesel, Kerosene, Jet Fuel	Х	Χ	Χ	X	Х	Χ				Х	X	X	X	Х	Х	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Х	Χ						
Surface Water (Drinking Water	Waste Oil						Х				X	Х	X	X	X	Х	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	
Use or Unknown)	Aviation Fuel	X	Χ	Χ	Х	X	Χ	X		X	Χ	X	X	X	X	Х	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ			Х			
	Unknown	Х	Χ	Х	Х	X	X	X		Х	Х	X	X	X	X	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Х	Χ	Χ	Χ	Χ	Х	Χ	
	Gasoline	Х	Χ	X	Х	Χ	X																									
Groundwater	Diesel, Kerosene, Jet Fuel	X	Χ	X	X	X	X																									
(Non-Drinking	Waste Oil						X																									
Water Use)	Aviation Fuel	Х	X	X	X	X	X	X	X																							
	Unknown	X	Χ	X	Х	X	X	Х	X																							
	Gasoline	Х	Χ	X																												
Surface Water	Diesel, Kerosene, Jet Fuel	Х	Χ	Χ							Х		Х	Х	Х	Х		Χ	Χ	Χ	Χ	Χ	Χ			Χ						
(Non-Drinking	Waste Oil										Х		Х	Х	Х	Х		Χ	Χ	Χ	Χ	Χ	Χ			Х						
Water Use) <sup>3</sup>	Aviation Fuel	Х	Х	Х				Х			Х		Х	Х	Х	Х		Χ	Х	Х	Χ	Χ	Х			Х						
	Unknown	Х	Χ	Х				Х			Х		Х	Х	Х	Х		Χ	Χ	Χ	Χ	Χ	Χ			Χ						

<sup>1 -</sup> To be included for soil samples prior to Exposure Assessment (i.e. Exposure Assessment is integrated into IRHMR/ISCR)
2 - PAH and metal samples shall be field filtered using a 0.45 micron filter
3 - If surface water is within 0.1 mile from UST contamination/site then groundwater shall also include modified PAHs for anything other than gasoline

#### 7.0 PER DIEM AND LODGING PROCESS

#### Task 7.1 Per Diem

#### 7.1.a Cost for per diem charges

This SOWtask will include the cost of all per diem charges accrued performing site remediation tasks as requested by the Division. Date(s) and time(s) must not exceed time for being onsite plus travel. Meals will not be reimbursed without a corresponding lodging receipt. No mark-upmarkup allowed. Maximum cost shall be reimbursed in accordance with the state of Tennessee travel regulations at the time that work was performed. Current travel regulations can be found at: https://www.tn.gov/content/dam/tn/finance/documents/fa policies/policy8.pdf.

#### 7.0 PER DIEM AND LODGING PROCESS

#### Task 7.2 Lodging

#### 7.2.a Cost for lodging charges

This SOWtask will include the cost of all lodging charges accrued performing site remediation tasks as requested by the Division. Date(s) must not exceed time for being onsite. Hotel invoice must be submitted with reimbursement request. No mark-upmarkup allowed. Maximum cost shall be reimbursed in accordance with the state of Tennessee travel regulations at the time that work was performed. Current travel regulations can be found at:

https://www.tn.gov/content/dam/tn/finance/documents/fa\_policies/policy8\_pdf.\_www.tn.gov/finance/act/documents/policy8.pdf

## IXX. INSTRUCTIONS FOR COMPLETING REIMBURSEMENT APPLICATIONS IN THE COST DATABASE

The Division of Underground Storage Tanks (Division) has a process for reimbursement involving electronic applications. This process consists of three (3) parts: cost task descriptions, cost task spreadsheets and a cost database. The cost task descriptions provide details of commonly performed tasks at contaminated UST sites (see Section IX). The cost spreadsheets provide the breakdown of routine maximum cost for performing each task. The cost database is a Microsoft Access® program and requires you to use version Access® 2007 or higher. Different versions of Access (32 vs. 64 bit) are available. If you upgrade or change computers, you may need a different version of the cost database. Please contact the Division if you begin encountering problems after a change.

An Access® database has been developed to prepare and submit electronic applications. The database is available for download from the Division's website under Fund and Reimbursement:

https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/ust/ust-forms-guidance.html.

Applications, appeals, questions, comments, etc. should be submitted to: <a href="mailto:ust.reimbursement@tn.gov-">ust.reimbursement@tn.gov-</a>.

#### A. UST COST Cost DATABASE Database INSTRUCTIONS Instructions

Before beginning any electronic invoice, it is a good idea to become familiar with the task description and associated cost spreadsheet to determine: 1) what job titles are allowed to be billed, 2) what type of equipment is reimbursable for each task and 3) whether the task is an office/field task or travel time to/from task. At first, it may not be obvious where certain tasks should be entered. It may be useful to scan through several sheets before beginning any data entry.

Always use the tab key to exit data boxes and always tab out to save information.

Once information has been entered into a field, it will automatically be saved when you exit that field.

#### B. TO BEGIN THE INVOICE Degin The Invoice

The terms on the first page of the application database must be agreed to by clicking the box. Click on the "Start UST database" button to begin. On the next page, click on the map of the state of Tennessee in any location to open the database.

#### C. COST Cost DATABASE MAIN PAGE atabase Main Page

Click on the "ENTER NEW FACILITY ID/INVOICE NUMBER" button to begin. A pop up box will appear for the entry of the seven-digit UST facility ID number not including dash. After entry of the UST facility ID number, click ok. Another pop up box will appear for entry of the invoice number. After entry of the invoice number, click ok. The program is set up with an automatic clock and calendar function. If you do not want to use this feature, then click on the "Pop-up and Other Options" button to disable it. Also in the "Pop-up and Other Options" button you may turn on/off the auto-complete function and also set the mileage, lodging and per diem rates for the database. Additionally, there are buttons to remove duplicate records from the tblGeneralInformation table and to remove a zero numbered task in the tblReimbursement table.

#### D. INVOICE ENTRY PAGEnvoice Entry Page

It is important that all information on this page be correct. The facility ID number will appear as a default on the next page. Enter the appropriate information in all fields. If any field is left blank, a pop up box will identify the field that needs to be completed. If the case number is not known, enter "Unk". It is recommended that you contact the case manager Division project manager to obtain this number. All work that is to be entered for this invoice must be within the time period entered in "Work Start Date" to "Work End Date" or an error message will occur.

NA or Unk is acceptable in phone number box for the facility phone number only. If the site does not have a corrective action system, then leave the start-up date field blank and click "No" in the "SAVE" pop up box. If you accidentally enter a date, hit the delete key. After all fields are completed, click the "Save/Close" button. This will store all background information that can be used for any future applications for this facility.

#### E. GENERAL INFORMATION PAGE eneral Information Page

To begin entering task information/cost, go to the UST cost database main page and click enter/edit task information after selecting a Facility ID and invoice number on the Main page.

#### 1. Entering or deleting employee names

Click the "Enter/Delete CAC Employee Names" button. Enter all employee names and titles. After entering all employees click the "Close Employee" button. Note: employee names on the reimbursement application are to

match the employee names exactly as submitted with the annual Corrective Action Contractor (CAC) update or subsequent revisions.

2. Entering or editing detail task information

Click the "Enter/Edit Detail Task Information" button.

#### F. PROCESS AND TASK PAGErocess And Tasks Page

Click the "Enter New Task" button. Enter a process\_\_task\_\_, and sub\_sub\_task by using the drop down boxes provided. The appropriate buttons applicable to the task will be enabled for data entry.

#### G. **BUTTONS Buttons**

Only the buttons applicable to each process/task/sub task/sub sub task will be enabled for data entry. At this time, it is encouraged that you familiarize yourself with each task description and cost spreadsheet before beginning database entry.

Comment fields have been provided throughout the database. These fields should be used to supplement your application submittal and offer explanation when needed.

**TRENCHING** - Enter costs associated with recovery well trenching or discharge trenching approved by the Division not to exceed the reasonable rates in RGD-002.

**PERSONNEL** – Personnel hours can be billed as on-site, office, travel to or travel from time. Refer to each task cost description. **NOTE:** Travel time is a separate, billable expense and is **NOT** included in any task description. Each approved field activity is allowed a maximum of two-three (23) hours travel to the site and two-three (23) hours travel from the site.

**RENTALS** – A drop down menu is available of the most commonly encountered rental equipment and items. If a piece of equipment does not appear that accompanies the application, then it must be entered on the "Miscellaneous" button and an explanation attached why the piece of equipment was necessary. It is required that you obtain prior approval from the <u>case managerDivision project manager</u> for any rental equipment not listed in the drop down menu.

**SUPPLIES** – A drop down menu is available of the most commonly encountered supplies and items. If a supply does not appear that accompanies the application, then it must be entered on the "Miscellaneous" button. It is required that you obtain prior approval from the <u>case manager Division project manager</u> for any supplies not listed in the drop down menu.

**MILEAGE** - The starting location should include, at a minimum, the name of the city and the ending location should be the name of the city where the site is located. On the return trip, the ending location should either be the CAC office or another UST site where work has been approved by the Division. If the destination is another UST site, then please enter the seven digit facility ID # and city. **NOTE:** Mileage is a separate, billable expense and is **NOT** included in any task description. Each approved field activity is allowed a maximum of 250-300 miles total round trip at a rate of \$0.47/mile for automobiles and at a rate of \$0.75/mile for large (diesel) trucks. Only mileage within the state of Tennessee is reimbursable. If you are traveling from a different state, please list the nearest city in the state of Tennessee as your beginning and/or ending location.

**GROUNDWATER SAMPLING** - Reimbursed costs include all necessary equipment, personnel and sampling supplies. **DO NOT** itemize separately for personnel time on site. **This task is all an inclusive, lump sum task.** The first well must be entered separately and identified by location number (i.e. MW-1; One well @ \$273.50323.50). Any additional wells sampled may be entered on the same page (i.e. MW-2 thru MW-6; 5 wells @ \$120136.00/each).

**WELL SURVEYING** – Reimbursed costs include all necessary equipment, personnel and sampling supplies. **DO NOT** itemize separately for personnel time on site. **This task is all an inclusive, lump sum task.** The first four (4) wells must be entered together (i.e. MW-1 – MW-4 @ \$745.00977.00). Any additional wells surveyed may be entered on the same page (i.e. MW-5 and MW-6; 2 wells @ \$145168.00/each).

**ANALYSIS** – Reimbursed at cost plus 15% mark-upmarkup not to exceed the rates listed in the RGD-002.

**MEME** – Enter costs associated with any mobile enhanced multi-phase extraction event that has been approved by the Division.

**CAS INSTALL** - Enter costs associated with wellhead vault installation, manifold installation or concrete pad installation approved by the Division not to exceed the reasonable rates in RGD-002.

**WELL INSTALLATION** - Enter costs associated with any drilling activity such as direct push, slide hammer, or hammer drill (soil gas survey) or augering or air rotary (monitoring well installation) event that has been approved by the Division.

**WELL ABANDONMENT** - Enter costs associated with any monitoring well abandonment event that has been approved by the Division.

**MISCELLANEOUS** – This button should be used sparingly and <u>only</u> as an exception. It cannot be used for reports. Costs entered on this tab will require justification and may be grounds for a detailed audit.

**HAULING/DISPOSAL** – Costs for properly disposing of contaminated soil and/or groundwater as approved by the Division not to exceed the reasonable rates in RGD-002.

**REPORTS** – After selection of the appropriate report, enter the date the report was submitted to the Division and the cost requested.

**UTILITIES** – Enter costs associated with payment of utilities when a corrective action system has been approved by the Division and is installed.

**LODGING/PER DIEM** – Enter costs associated with lodging and per diem for Division approved work in accordance with the state of Tennessee travel regulations in effect at the time that the work was performed.

## H. PREVIEWING THE INFORMATION reviewing the Information (GENERAL INFORMATION PAGENERAL INFORMATION PAGENERAL INFORMATION PAGENERAL INFORMATION PAGENERAL

The "Print Preview and Printing" button may be used any time <u>prior to</u> creating a file for submittal to the state for review purposes as needed. This is a useful tool and it is recommended that you review the information entered prior to creating a file for submittal to the state. In this manner, you can determine if the costs will be reimbursed as entered or if there are any disallowable costs.

# I. Create File For Submittal To State Of Tennessee REATE FILE FOR SUBMITTAL TO STATE OF TENNESSEE (Use Only After The SE ONLY AFTER THE Application Is Complete APPLICATION IS COMPLETE)

After all entries have been completed and the file is ready to be created, go to the General Information page and click on the button labeled "3. Create File for State Submittal". A Browse for Folder box will appear to provide a choice of where the file is to be stored. Click on the appropriate folder for the file to be stored. After the file has been successfully saved, the message "The export file was successfully created" will appear. Click "Ok".

## J. Back-up Documentation To Application ACK-UP DOCUMENTATION TO APPLICATION

Back-up documentation including invoices, receipts, time sheets, etc. should be scanned and submitted as a pdf file.

#### K. Suggested Practices UGGESTED PRACTICES

<u>Always</u> make a back-up copy after each session of data entry in a secure and separate file location for problem situations that may arise. Database maintenance

should be performed occasionally as needed using the Microsoft Access® manage tool, compact and repair.

## L. SIGNATURE PAGESCertification Affidavit Pages ERTIFICATION AFFIDAVIT PAGES

At this time, the Division does not have a process in place to accept electronic signatures. However, applications Applications for reimbursement must be signed by both the Responsible Party and the CAC to verify the costs submitted represent actual costs accrued during the cost of cleanup. The preferred method is for the person completing the application to provide a copy of the application to the Responsible Party and attach the certification affidavit pages. After the Responsible Party has reviewed the application, it must be signed and notarized. The CAC should also complete the applicable certification affidavit page in the same manner. Both original, notarized certification affidavit pages must be submitted with the electronic submittal. Electronic copies of these pages will not be accepted. Applications will not be forwarded to the fiscal office for payment without both certification pages. Copies of these pages are found under Forms and can be downloaded at: <a href="https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/ust/ust-forms-">https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/ust/ust-forms-</a>

**guidance.htmlwww.tn.gov/environment/ust/**. (click FUND AND REIMBURSEMENT > click Blank Certification Affidavit Pages for Electronic Applications click CN-0923).

Any item/cost that is not listed in RGD-002 must be pre-approved by the case manager Division in writing. All back-up documents (emails, letters, etc.) for approval shall be submitted with the application. Failure to obtain case manager Division approval and/or furnish the back-up documentation will result in denial of the requested costs for that item/cost.